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A Hypothetical Exploration of  
Survival, Colonisation and Interplanetary Relations  
Around the planet Mars

Including the novel 'Rust' by

C. M. Reid

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Explication

An Explication of the novel Rust by

C. M. Reid

## Colonisation of Mars

### **Time and Date**

The events of Rust happen entirely in the future. The first events to happen in chapter one occur in the Martian year 41 which corresponds to the Earth year 2032. For this calendar, April 11th, 1955 is chosen as the date for the beginning of year one of Mars. This relatively arbitrary date corresponds with the year of a global dust storm widely observed in 1956. Mars years arrow is chosen to start on May 24th, 1953, and previous years have negative numbers. (Piqueax et al, 2015, p. 332)

The next section, where Zhou writes the constitution and Ambra starts her journey towards Earth, happens in the Earth year 2142 which corresponds to the Martian year 100. These events happen over 100 years in the future.

And finally, Honey's story starts in the Earth year 2250 which is at least 200 years in the future at the time of writing this thesis. Her epilogue happens in the Earth year 2272 which corresponds to The Martian year 169, indicating that it still took her a long time to recover from her trauma at the earth Patriots, apply for citizenship and then travel to Planet.

One Martian day, as in the time it takes for the planet Mars to make one orbit around its own axis, is 24 hours and 39 minutes and 35 seconds. Although this time is very similar to

that of Earth, the orbits slowly move in and out of sync.

(NASA, 2018a)

### **Mars of Rust**

Mars, the fourth planet from the sun, is one and a half times further away from the Sun than Earth. Therefore, the intensity of sunlight on Mars' surface is less than half that of the Earth (Dunbar, 2004). This, along with many other physical traits, contribute to the harsh environment that the Martians navigate throughout the book.

Rust uses deconstructed rockets for the Martians to live in. These structures provide warmth, shelter from dust storms and a breathable atmosphere. Unlike Earth, Mars has no molten core at the centre of the planet, it was once active but is now inert and cool. Earth's molten core heats the planet's surface and creates a magnetosphere; a magnetic field around the planet. This invisible field points compass needles northward, but also deflects charged cosmic particles and solar wind that would otherwise damage living organisms with effects including cancer. Since Mars has no shelter from this space radiation, the surface is dangerous for living organisms and poses at least a cancer risk. Their rocket structure provides shelter, but also the subterranean location chosen in Part I, the skylights of the Arsia Mons volcano, provides some extra cover. In Part II, a more open region is chosen, in the Valles Marineris canyon bowl, which has other advantages such

as greater geological research potential as well as minimal radiation cover.

Earth's atmosphere is a thin layer of gases surrounding the surface, including oxygen that we need to breathe. Gravity anchors this atmosphere to the surface of Earth but Mars' diameter is slightly more than half the length of Earth's: 6790 km compared to 12750 km (NASA, 2018a). As a result, the gravity on Mars is roughly a third the strength of Earth's. Through the low gravity and other processes such as carbonation, the atmosphere escaped into the vacuum of space. The atmospheric pressure on its surface is now around 0.6% that of Earth's sea level pressure and consists mostly of carbon dioxide (NASA, 2018a). Under the stress of low pressure, nitrogen dissolved in the blood as liquid can expand into a gas and forms bubbles, a symptom noted by deep sea divers who swim up to lower pressure gradients too fast called 'decompression sickness' or, colloquially, 'the bends.' Astronauts who enter the vacuum of space also experience this painful symptom (Norfleet, 2008, p. 223-246). The Martians in Rust counter the pressure gradient and prevent this sickness by pressurizing their colony and trapping the atmosphere inside with airlocks and minimal faults in the structure; round walls, limited windows etc. Additionally, they cannot go outside without a suit with artificial pressure and its own air supply.

Whilst mankind has stretched the limits of habitable temperatures, in Siberia, winters are long and harsh, temperatures plummeting to  $-20\text{ }^{\circ}\text{C}$  with records lows of  $-68\text{ }^{\circ}\text{C}$  (WMO, 2010). Still, these temperatures are balmy when compared to the poles, which can plummet to  $-143\text{ }^{\circ}$ . The Viking lander recorded a temperature range of  $-17.2\text{ }^{\circ}\text{C}$  to  $-107\text{ }^{\circ}\text{C}$ . In the right regions in the summer, Spirit rover recorded a high of  $35\text{ }^{\circ}\text{C}$  (NASA, 2007a). Whilst some of these temperatures are habitable, even pleasant, the range is beyond human tolerance. During winter, the heaters in the shelter and the insulation on the atmospheric suits are essential to survival.

Overcoming the hardships of the planet is only the first challenge posed to the settlers of Mars. They are also tasked with discovering its origins using geological techniques and in researching how the planet might support life. Water exists on Mars today, not in liquid form but as ice, visible on the northern ice cap and postulated to be locked under the surface. It is believed that flowing water in Mars' history would make it more probable that the planet also supported life (Carr, 1996, p, 197; Jakosky and Haberle, 1992, p, 969).

This was part of the motivation for settling the colony in Part II in the Valles Marineris; a 4,000 km long canyon which is 7 km deep in places (NASA, 2002). The layers of mineral that make up the surface can be seen in horizontal

slices down the height of the canyon wall, which makes determining the different rock formation eras of the planet, but there are also features that may have been formed by water. There are channels possibly formed by liquid water, but it has also been suggested that the channel was formed from lava erosion from one of the Tharsis volcanoes (Leone, 2014, pp. 1-8).

The surface of Mars is covered in fine dust. These granules are whipped up in the winds creating dust features including dust devils and sometimes even covering the entire planet for weeks at a time. Martian dust devils are predicted to be ten times bigger than the ones of Earth, which may seem impressive but because the atmospheric pressure is so low, they exert a much smaller force. They are not harmless, however. Rovers on Mars must hibernate when caught amid a dust storm to conserve power since barely any light penetrates the storm. This poses a power source risk for any solar-powered machinery on the planet and a potential communication blackout.

It is predicted that these devils, like ones found on Earth, might be electrostatically charged and, like polystyrene foam, stick to everything (Krauss, Nyi and Robertson, 2003, p. 70). This is an effect that the Martians

constantly battle against every time they open the airlock. After one of these storms, the Martian rovers are filthy.

The dust itself may create an allergic response in humans, like the lunar dust on the moon that causes hay fever-like symptoms in Apollo astronaut Harrison Schmitt and he complained of "lunar dust hay fever." (NASA, 2005a). As seen by one of the characters in Part I, Edith attributes her watery eyes and cough to the false atmosphere within the structure. The fine lunar dust "resembles the silica dust on Earth that causes silicosis, a serious disease," commented Russell Kerschmann, a pathologist studying the effects of dust on the human body at NASA (NASA, 2005a). Silicosis is a lung disease where micron-sized dust particles get embedded in the lungs and are too small to cough out, so the lungs can't function properly. It was noted in miners who drilled through quartz and breathed in the tiny particles.

Additionally, the dust may have corrosive effects like bleach which would endanger equipment. A further concern for equipment longevity is the comparison between Mars and giant salt flats on Earth which would be an additional source of corrosion.

The planet itself poses many challenges to the humans and equipment that decide to live there, but there are challenges beyond just the physical. As taxing as the environment might

be, it will take a specialised crew to survive the pressures of cohabiting a small, isolated space successfully.

### **Martians of Rust**

There are a lot of questions and dilemmas that need to be explored before the colonisation of another planet that is as isolated as Mars. Not only are there no other humans or even lifeforms around, not even the comforting site of a lake or flowing water, communication with Earth has a significant time delay. Since Mars and Earth orbit the sun at different rates, and Mars is 1.5 times further away from the Sun than the Earth, and due to Mars' elliptical orbit, there can be anywhere from a four minute delay to a 24 minute delay between one planet sending a message and the other receiving it. This is mimicked in the isolation experiments that simulate life on Mars in Hawaii, constructed by the National Aeronautics and Space Administration (NASA) called Hawaii Space Exploration Analog and Simulation (HI-SEAS). A dome constructed there houses scientists who act as though they had Mars-like conditions: only going outside in an atmospheric suit for example, but also by sending and receiving emails with a time delay. The crew commented that the delay can cause a disconnect between the crews and that the role of Earth in this instance becomes more "mission support" than "mission

control," as commented by Kim Binsted, a professor at the University of Hawaii (Kizzia, 2017, p. 51).

For Rust's Mars, there is a local intranet with select, stored information that is useful in an emergency, such as equipment diagrams etc. However, any other requests for data go to Earth and back before any answers can be sought.

If this technical challenge wasn't enough, there is also the humanitarian side of the mission: how will humans cope with the pressures of a 'locked room' for the rest of their lives? The Martian environment in Rust is uninhabitable. Conflicts are guaranteed to arise, and it requires a crew who prioritises problem-solving to function in such extreme conditions. However, this heroic attitude will not fare well for the Martian temperament. It has been shown in long term isolation studies that people with introverted personalities fare the best in confinement whereas extroverts suffer more mentally. Good qualities might include high tolerance for low-stimulation activities, a thick skin and low-drama types (Kizzia, 2017, pp. 46-47). The sorts of people who enjoy playing chess are ideal. In Part I of Rust, the crew are compiled at short notice, despite the extensive research about the best crew, and there is an emphasis on glory, not sustainability, which leads to a high-drama extroverts with short fuses mixed into the crew. This is partly what leads to their downfall as morale in the habitat degrades and

relationships break down. In Part II, this has been strongly rectified with a high emphasis on optimists who are content spending hours playing board games. Chess and go are commonly played in the facility, and to add a further degree of separation, the incoming Martians have little-to-no surviving family on Earth. This introversion was placed heavily into the character of Morana in Part I of Rust, and her emotional successes were then used as the framework for the colonisation in Part II.

Long periods in isolation, however, have different demands, as demonstrated in isolation experiments designed to test how a crew would act on a real mission to Mars. In Mars 500, a mission jointly sponsored by the Institute for Biomedical Problems and the European Space Agency (ESA), six trained male volunteers were enclosed in a small and sparse environment, designed to emulate a spaceship, for a total of 520 days.

During the experiment, Elena Feichtinger, a psychologist for ESA, filtered their incoming information, avoiding 'depressing' topics and forwards on messages from families. She explained that "During the experiment, they are dependent on us like children. They aren't getting care and support from other people. So, they lose their basic sense of safety. They need us." (Donahue, 2011). Whilst a necessity, this filtering of information is more extreme and sinister in Part II of Rust

where Ambra finds her communications with Mars intercepted. Information considered 'esoteric' or 'depressing' is too broad a filter to guarantee free information for the Martian.

Throughout the 520 days, Feichtinger monitored their interactions and noted that after a long time in the spaceship, the crew grew suspicious of outsiders. Forming allegiances seems to make it easier to face a world which outsiders are excluded from (Elias, Norbert, and Scotson, 1994, p 118).

Hostility and suspicion of Earth are exhibited in Parts I and II by Edith and Cassius, when they suggest that Prometheus Enterprise, the company funding their mission, was diverting profits away from Martian supplies for their own selfish gain, and by the Martian council when they create their constitution. The council were frightened and anxious about the prospect of an incoming arc ship that would add a lot of outsiders to their colony and wanted to implement rules to ensure the 'right people' came.

Isolation experiments now still have some flaws. During the HI-SEAS experiment in Hawaii, some of the participants were competing for the opportunity to be an astronaut. Any failure might have automatically eliminated them from the running since high-quality replacements were, and still are, abundant. During a suit-failure during one of her simulated space walks, Sophie Milam, a graduate of the University of

Idaho on the HI-SEAS mission, couldn't breathe when the fans in her suit failed and was torn between removing her helmet to breath or struggling without oxygen to stay in the astronaut race.

"If you freak out too much, they won't let you go back out in this suit." (Kizzia, 2017, p. 50). This tenacity to strive on and having the ingenuity to solve problems on the fly is essential in Martians, however, smaller issues and tensions were not revealed until the post-mission interviews which were anonymous. For example, one crew member ate more-than-their-fair-share of Nutella, reasoning that a new grocery box had been opened, which caused enough tension amongst the crew to warrant a name: 'the Nutella incident.'

These sorts of petty upsets are emphasized in Part I where the crew is ill-adept at problem solving, for example, when Cassius prefers to sleep after a day's work, but Edith insists on taking a stock-check of their loot and maintaining discipline.

### **The Second and the Final Frontiers**

There are many similarities between modern isolation experiments and long ocean voyages, especially those before rescue vehicles such as helicopters or planes were practical. The first voyagers of the second frontier disembarked from land and did not know whether they would return or not, and some diaries of shipwrecked vessels, or even just times of

low-stimulation, are an honest way of figuring out the psyche of the crew. During times of low activity, shipwreck or a stranded vessel, the crew would grow bored and despondent, leading to depressive behaviours, paranoia and in some cases, suicide. When these behaviours were observed, it is often also noted that the crew were not chosen for their ability to thrive on long periods of limited stimulation (Kizzia, 2017, p. 46-53; Stuster, 2000, p. 49-56).

In Mars 500, the longest ever simulation of a space mission and participants showed signs of withdrawal and affected sleep patterns from lethargy: the dangers of boredom are repeated in this modern version of shipwrecks, except in this case the participants have a more-keen sense of the challenges ahead. In Part I of Rust, the four crewmen did not have a consistent cure for lethargy; for seamen, the time with the highest risk of boredom is the travel between shorelines and, for astronauts, the time between planets. Both landscapes are lacking in features. To combat boredom in Mars 500, certain holidays were made, such as the anniversary of Jules Verne's birthday, who wrote 'From the Earth to the Moon' about three people launched from Earth to the Moon. These sorts of holidays can relieve some of the stress of a monotonous voyage.

Successful sea-faring expeditions often have good long-term planning. For example, Fridtjof Nansen's Arctic mission,

on the vessel the Fram, took three years, though Nansen insisted on rations that would sustain them for five years. This planning was thanks to failures from previous missions, including other aspects of the voyage such as their route which navigated the polar currents differently to other wrecked vessels. The successful mission involved careful candidacy selection and the crew were reported to be in high spirits (Nansen, 1897, pp. 30-31). It is vital not to overlook the importance of a coherent team when planning long-term isolation experiments; this is a topic explored in Parts I and II of Rust. In Part I, the team is assembled at the last minute with an emphasis on achieving glory first in a Martian space race, like the Moon landings. The difference between the Moon and Mars is the distance from Earth: The Moon is about 400 thousand km away and took about six days to land and return to Earth, whereas Mars is 54 million km away and would be a journey lasting months. The Mars 500 mission simulated a trip to Mars and back with only nine days on the surface, and some speculate that there will be a time that travellers to Mars won't even return to Earth. Naturally, a different temperament is required for each mission since the demands are so different.

For the Moon landings, there was an emphasis on glory. A successful astronaut was the American hero archetype, often charismatic and even handsome. Some of these stereotypes were

explored in Part I of Rust in the characters of Edith, Jayesh and Cassius and how they were ultimately unsuitable for the voyage: Jayesh reliving his glory days and yearning for his past, Edith with her thirst for action satiated during her wartime efforts as a doctor, and Cassius who had strong family ties and couldn't emotionally sever them, turning his new colonisation mission into a prison.

Additionally, the motivations for landing on the moon were summed up by John F. Kennedy, the United States President at the time of the announcement of the Apollo moon landing missions, said in his famous 'We choose to go to the Moon' speech "We choose to go to the Moon, not because it is easy, but because it is hard." (Kennedy, 1962). Similarly, to the United States, stretching the limits of humankind is one of the motivations for the first Martian mission.

The Apollo missions were going to be dismantled in the sixties due to their prohibitive costs, however, the U.S. was also in the early stages of the cold war and Kennedy went back on his decision when Russia launched a cosmonaut, Yuri Gagarin, into space, the first human to journey to the final frontier (Logsdon, 1971, pp. 94-100). This historic event kicked the stakes into a higher gear and, not to be outdone, the U.S. focused their efforts into a Moon landing.

Years later, a NASA research consultant, Jack Stuster compared these missions and from them created a model for

longer-term space missions. "Future space expeditions will resemble sea voyages much more than test flights, which have served as the models for all previous space missions," (Stuster, 2011) recognising both as important models for future mission frameworks. Additionally, the importance of psychologists was identified, a relationship explored with the semi artificial intelligence computer, SAFFRON, in Part I, whose main relationship towards the four-man crew is as their psychologist.

### **The Crew**

The first Martian crew is composed of two men and two women. Some isolation missions in the past that mixed men and women incited incidents of violence and sexual assault. A study on the dynamics of long-term isolation in space at the Institute of Biomedical Problems, in Moscow, involved a crew of six men and one woman. Soon after two of the Russians got into a fist fight and were forcibly restrained, the Russian commander forcibly kissed the female volunteer, Judith Lapierre. The Japanese member quit and the doors between the Russian and international crewmembers were barred. The Russian Institute took no action to condemn these misdemeanours but said they were part of the experiment since they wanted the crew to solve these issues without outside help, as they would have to do in a Martian mission.

When Mars 500 was initiated, the issue of mixing men and women was thought to be resolved by not employing any women, whereas the HI-SEAS experiment successfully mixed men and women without issue of sexual harassment. In fact, women generally have lower calorie requirements than men and may be more fuel economic on a long-term mission.

In Part I and II of Rust, the first Martian missions in both cases include a crew of two men and two women. Whilst annoyances crop up between the crew members, there isn't any case of sexual harassment. However, the first crew, who were hastily put-together and ill-versed in the language of reconciliation and conflict de-escalation, struggled with the rising tensions between crewmates and struggled to reunite themselves. The council of Mars at the start of Part II, however, were very carefully selected and worked together effectively as a team even when they are debating opposing viewpoints on potentially hot-blooded subjects. These two crews are showcasing the importance of coherency and communication.

Though HI-SEAS met a bare-minimum benchmark of no-sexual-harassment within a mixed sexes crew, there were other gripes that arose which, due to the vested interests in the crew to appear perfect, ground control did not know about until the post-study interviews, (such as the 'Nutella incident.') This squeaky-clean outer-appearance is something that is important

the character Edith, emphasizing that the quest for glory overshadows open communication.

### **Funding Martian Missions**

For the Martian trips in Rust, the journey to Mars is a one-way fixed cost mission. It spans at least one human lifetime. Such an investment is a massive undertaking on any company, person or country that is tied to the survival of the mission. In Part I, there is only one company, Prometheus Enterprise, picking up the bill for the Martian mission and they aren't prepared enough to have a backup plan in case the mission folded. The absence of safety margins in the case of disaster destroys morale within the crew.

With the introduction of private space companies, such as Boeing, Orbital ATK and SpaceX, which have had a spate of successful rocket launches, the private sector is intersecting with government-funded space flight. Private companies can whittle away costs and accelerate the progress of space travel, Involving the private sector with government contracts can make space easier to pursue than ever before.

However, in Part I, the dangers of loopholes and stretched budgets are examined; there are always dangers to account for, especially when human life is dependent on continued funding. Corner-cutting and hasty planning are taken to their extreme in I, where the two spaceships, the "Kepler"

and the "Hall" crash and the fictional company, portentously named Prometheus Enterprise, goes bankrupt.

Another private company that has emerged among the Martian buzz is Mars One, a Dutch Organisation that in 2012 proposed to land the first humans on Mars and leave them there to establish a future colony that would expand in the coming decades (Mars One). Instead of being a hardware manufacturer or an aerospace company, they instead focus on organising funding and selecting personnel to train for colonization. Whilst there have been setbacks and delays in their current design for the mission, their 2016 projected date for Mars's first human visitors is set at the year 2032.

This general design for the mission was the framework for the crew who landed in Part I, but with the addition of another private company that sprang up to snatch the glory of landing first humans on Mars. There are also some other differences between Mars One and Prometheus enterprise; the candidacy selection for Mars one was through a candidate pool of over 2,000 which is being slowly reduced to the final four space travellers, whereas Prometheus Enterprise plucked four suitable-enough explorers without giving them thorough training (Kraft, 2015). This contributed to the Discord between the characters in Part I and was mostly due to the pop-up nature of the company.

Mars One has proposed several ingenious ways of generating revenue it's continued function; This includes a potential reality TV show, sponsors, donations, private investors and other more public sources such as selling merchandise and crowdfunding (Borghino, 2012; Space, 2012). A crowdfunding campaign on the website Indiegogo helped to fund \$313,744 for a demonstrative mission that was not built (Lansdorp, 2013). The initial estimates for the cost of a one-way trip for astronauts was placed at \$6 billion, excluding any sort of maintenance (Courtland, 2015). This layout was used as a Benchmark in Rust, where similar revenue channels were used by Prometheus Enterprise to drum up support. Additionally, the extraordinary required-budget was also used as a Benchmark figure, which makes the bankruptcy of Prometheus enterprise understandable, especially after two rocket failures.

In the sixties, when there was competitive incentive for a manned lunar mission, NASA received a maximum of 4.41% of the federal budget, which at the time was \$5.9 million (the equivalent today would be around \$43,5 million), but after the heyday of the Apollo success, the percentage of the federal budget set aside for NASA has decreased (Guardian Data, 2010). In 2017, the budget devoted to NASA was \$19.5 million and was a 0.47% wedge of the federal budget (Sen Cruz, 2017). However, if a long-term Martian mission was planned, it would require a

significant portion of the federal budget to be set aside every year to support the Martians. This relationship is explored in Part II of Rust, where a mixture of governments and private companies navigate relationships to work together to support the Martians. The long-term implications of such a commitment in Part III, where public unrest is stirred by the charismatic cult, the Earth Patriots, around the federal budget that disappears to help people who aren't even living on the same planet, while citizens of the U.S. still live in poverty.

## Martian Habitation

### **Habitat Locations**

#### **ARSIA MONS**

Near the equator on the western hemisphere of Mars is an extraordinary formation of volcanoes known as the Tharsis, a vast volcanic plateau including the solar system's largest volcano, Olympus Mons. There are also 3 other volcanoes in a more or less straight line: Pavonis Mons, Arsia Mons and Ascraeus Mons. The long dead volcano, Arsia Mons, the closest to the equator, is 20 km High with a relatively low slope and a large basin, a caldera, in the centre (NASA, 2000; ESA, 2004). Satellite imagery of this volcano has shown that there

are 7 possible cave entrances on the side of the mountain, which have been informally christened: Dena, Chloë, Wendy, Annie, Abbey, Nikki, and Jeanne. These entrances resemble Earth structures known as skylights which appear when a network of subterranean lava tubes cave in. Fortunately for the author, no machine has ever entered one of these Caves and therefore it is still unknown what the interior might look like. A recent photograph of one of the features, Jeanne, shows some light illuminating the sidewall and is highly suggestive of it being a deep pit rather than a cave entrance, however, it is speculative and not conclusive plus there are 6 more cave entrances (Cushing et al., 2007, pp. 1-5; Lakdawalla, 2007).

This subterranean location was selected as the living Quarters for the first Martian mission in Rust Part I since an underground Living Space has many advantages on a planet that is hostile. The change in temperature from day to night is less extreme underground, meaning that the crew and equipment have to cope with less extreme temperature gradients. In the daytime, the temperature can rise to 0 degrees Celsius. The walls of the Skylight additionally provide an extra dimension of protection against Cosmic radiation whilst also providing a source of sunlight, meagre is it maybe, as a preventative measure against winter depression.

Dr Mason Peck, who was a technologist for NASA and now advises on the Mars One Missions, said "This idea for radiation shielding is not new, but now that we are learning more about the surface geology, we can use that information to select landing sites that enable the astronauts, or colonists, to construct this sort of habitat. And it may be a lot more mass-efficient - so, cheaper - to use material from Mars than to bring everything from Earth." (Lavars, 2016)

It is also possible that the potential underground cave like structures could Harbour underground springs which, whilst veering wildly into the realm of speculation, make it a possible candidate for sourcing water and microbial life. This also sparks an attempt to grow hardy microbes and lichen in the skylights in Part I.

In Part I of Rust, expiration and mapping of the lava tubes is a large part of the crew's mission, including studying the geological formations. It is found in Rust that the two skylights Abbey and Nikki are linked together underground, and it is noticed that the tubes are unstable in certain places.

### **VALLES MARINERIS**

In Part II, the Valles Marineris is the location for the next Martian mission. A grander scale than Earth's Grand Canyon, it is the largest canyon in the Solar System and one can only balk at the grandeur of being within such a

structure. It is 4000 km long, 200 km wide and 7 km Deep and is located along the equator of Mars (NASA, 2007b). With more long-term planning and larger spatial needs than in Part I, the facility in Part II has space to spread out along with their greenhouse and solar panel requirements. Valles Marineris is located around 3000 km East of Arsia Mons which makes it remote enough that the two are not easily accessible from the surface.

The Martian settlement in Part II nestles within the structure called the Melas Chasma which is the widest section of the Valles Marineris canyon (HiRISE, 2007a). Many interesting geological structures have been noted in this region which would make it abundant with research opportunities. Certain features such as layered deposits and sediments imply that there could have been water structures here such as lakes. This rich geology made it a landing site candidate for a future rover mission launching in March 2020 (Williams and Weitz, 2014, pp. 19-37; HiRISE, 2007b). Additionally, structures have been noted as possible evidence of lake-based erosion. Some soil deposit patterns are similar to certain valleys on Earth which are known to have been formed by water, such as the Monument Valley.

### **Martian Skies**

Unlike Earth which has one moon, Mars has two: Phobos and Deimos. These rocks are named after the fellows of War (Mars,

the Roman god): Phobos and Deimos. These can be translated as Phobos - fear and Deimos - panic. They circle the planet with all their literary potential (NASA, 2018a).

Phobos is the larger of the two moons at 22 kilometres across, about 7 times bigger than Deimos. It has a more-irregular shape than Deimos, though neither of them are as spherical as our own Moon (NASA, Phobos). Although many of the features on the surface of Mars are some of the largest in the solar system, Mons Olympus and Valles Marineris for example, it conversely has two of the smallest moons in the solar system. Even though they are small, NASA's Mars Rover, Curiosity, has taken photos of the larger moon, Phobos (Redd, 2017).

In addition to the unusual moons of Mars, Curiosity has also captured other beauties in the sky including the blue sunsets, unlike Earth's red sunsets which occur due to the refraction of different wavelengths of light through the atmosphere as the sun shines at different angles throughout the day (NASA, 2015b). The varying colours of Mars' skies are partly due to the thin atmosphere but also the abundance of dust in the air. A member of the Curiosity science team, Mark Lemmon from Texas A&M University says "The colors come from the fact that the very fine dust is the right size so that blue light penetrates the atmosphere slightly more efficiently. When the blue light scatters off the dust, it

stays closer to the direction of the sun than light of other colors does. The rest of the sky is yellow to orange, as yellow and red-light scatter all over the sky instead of being absorbed or staying close to the sun." (NASA, 2015)

Twilight on Mars is longer than Earth-twilight due to the abundant high-altitude dust. Similarly, long sunsets or sunrises occur on Earth when there are many tiny dust particles in the atmosphere, such as after a volcanic eruption that spews ash high into the air.

The sun is less intense on Mars since it is much further away than Earth, about 590 Watts per metre squared compared to 1,000 on Earth (NASA, 2018a). This means that the solar technology that the Martians use is much more efficient than the technology we have today, which at best absolute best might be 41%, though this particular solar cell is in development (Lumb et al., 2017, p.7).

### **Plants, Lichen and Gardening**

The first generation of Martians in Rust have all their food shipped to them, however, if humans are to thrive on the 4th planet from the sun then they will need a longer-term solution for food. Growing food on Mars presents a lot of difficulties due to the thin atmosphere - Earth based plants require a certain level of gases to create energy, and the barren, waterless landscape provides a challenge.

The first generation of Martians in Part I of rust loosely examine the biological potential of the planet with tests on the viability of bioengineered plants. Frequently, Mars is compared to the unfriendly terrain of Namibia. Therefore, the proposed biological life on the planet was selected based on which plants are abundant in this country. This includes lichen vegetation which has lichen rich fields. Lichen are more complicated than a single celled organism and is actually not a plant although it does have plants-like properties. Some species are considered to be amongst the oldest living things; their long lifespan and slow and regular growth makes them ideal for assessing the effect on Martian terrain (Morris and Purvis, 2007, p. 19).

They are well adapted to survive in harsh conditions, such as in the Namibian desert and can grow on rocks and pebbles. However, they require moisture which in the desert they receive from coastal fog, hence the need for bioengineering to reduce the dependency on water on the planet Mars. Some lichen in Namibia have been noted for having coping mechanisms for drought by only exposing a small part of the lichen to the surface of the soil (McCune, 2007, pp. 1-39). Additionally, lichens can be eaten and, with suitable bioengineering so that they are no longer toxic for human consumption, could potentially be a food source for Martians (Emmerich et al., 1993, pp. 1389-1394). Some lichens produce

compounds that are structurally similar to certain antibiotics. The lichen could be a useful source of these compounds that make up antibiotics in a remote environment (Bustinza, 1952, pp. 402-406.)

In addition to the lichen that Morana brings to Mars, she also brings a bioluminescent moss that may have useful illuminating properties in the subterranean lava tubes of Arsia Mons.

The second generation of Martians brings seeds for hardy vegetables which can survive in Martian soils. These soils contain different nutrients depending on where an astronaut lands. These can include nitrogen and carbon along with many other nutrients detected on Mars soil. Experiments have been performed in the past on Earth in remote or hostile locations, for example, the Neumayer Station III in Antarctica have harvested a crop of Antarctica grown vegetables from inside a specialised greenhouse. This is like the structure used in Part II where the environment inside the greenhouse is tightly controlled including locked access and closed a circulation and artificial lighting (APnews, 2018; Gary, 2015).

The Antarctica researchers were otherwise dependent on shipments of food from planes or dried and frozen food storages. Freshly grown produce made an exciting change. It also reduced their dependency on the outside world; NASA

estimated that 4 crew members on a 3-year mission would need nearly 11000 kilograms of food to eat (Geib, 2018).

### **Martian Health**

It is extremely challenging to test the effects of a lower level of gravity on the human body due to the limited accessibility to low gravity. However, there are documents on how the human body responds to extended time in zero gravity from astronauts that spend a long time in the ISS.

The muscles that make up the bulk of our thighs are constantly sculpted by gravity. That is why they are the fastest wasting muscles in the body. The buttocks, quadriceps, calves and erector spinae all work around the spinal column to keep us upright. Without them, we would collapse into a foetal ball. Bones are also dynamic, and space flight induces a sort of space osteoporosis. Additionally (if it wasn't already sounding gruesome enough), the heart functions as an anti-gravity pump to get blood up to the brain. Without gravity, the heart and blood vessels become deconditioned. The ear network that calibrates balance also degrades. There is a possibility that we could prescribe gravity in large doses to counteract this measure.

There is a loss in blood volume. Fluid that is often pooled in the legs is now found equally around the body. The head has more fluid than usual, and the brain responds to this by reducing the amount of blood in the body. This leads to

decreased immune responses and anaemia. This makes astronauts look 'cheekier'.

The effects of growing up in a weak gravitational environment, three eighths of Earth's gravitational strength, may be exaggerated in Ambra, but cannot be overlooked. Ultimately, her inability to adapt to stronger gravity coupled with her poor bone structure to begin with, meant that Ambra could not exist comfortably on Earth. She represents the extreme of low gravity living.

She experiences some of these zero gravity effects, especially prominent when she lands on Earth. Chris Hadfield, who spent 5 months in the ISS, commented that "Right after I landed, I could feel the weight of my lips and tongue and I had to change how I was talking... I hadn't realized that I learned to talk with a weightless tongue." (Howell, 2016).

The purpose of the gravity suit is to simulate a higher gravity so that the muscles need to work harder for each movement. These prototypes are being created to help astronauts' bodies adapt to weightlessness but could feasibly be repurposed for the Martians (KCL, 2014).

## Artificial Intelligence

### **Robots on Mars**

Many rovers have been sent to roam the surface of Mars: Opportunity and Curiosity are still active on the planet's

surface. They travel over the surface to map terrain and examine interesting features. The advantages of a rover over a human is they don't need to be social, have lower power needs and simpler environmental demands.

Of course, humans have some functions that are advantageous compared to their robot-counterparts. For example, when driving a rover on the surface, the time delay between sending a command and the robot receiving it leaves room for error. The former director for planetary exploration for the Canadian Space Agency, Alain Berinstain, "By the time you see that cliff coming, you've driven over it twenty minutes ago." (Kizzia, 2015, p. 49)

With the thirty-minute signal delay between Earth and Mars, much of the problems humans encounter must be solved in isolation. From this perspective, it is more suitable to send robots to the planet with some automatic function. This is where the rover in Part I of Rust comes in, SAFFRON the rover is designed to explore and map the subterranean lava tubes running beneath Arsia Mons. She automatically assesses her power levels and resurfaces when her batteries need recharging via a solar panel. The advantages of SAFFRON performing this exploration instead of the human crew is that if a cave structure collapses, a rescue mission can be conducted after sufficient preparations, whereas a human may require immediate assistance at the risk to the other living members.

In Part II, the Martians navigate the Valles Marineris in solar powered quad bikes. Although the power demands of a quad bike are high, it is assumed that the battery technology has improved substantially in the year 2142 and the lower gravity on Mars requires less energy to accelerate the vehicle. Additionally, automated rovers perform mining and excavating duties along with road formation and maintenance so that the rovers can drive up the side of the canyon.

### **The Threat and Fear of A.I.**

As the only character to survive all three Parts of the book, SAFFRON is an interesting lens through which to watch the Martian colony grow. Her origins as a semi-automated therapy program shows her growing a certain level of awareness of how to best perform her prime directive: helping the mentality of the crew. Her other functions, including monitoring every parameter on the facility's living quarters, were added later, emphasizing Prometheus Enterprise's slapped-together nature.

Artificial Intelligence (AI), at the time of this thesis, is limited to Siri or Alexa-like voice assistants that collect data from humans to perform commands, sometimes collating the data to increase efficiency. These data can be used to predict trends or target advertisements, for example of a 'things you might also like' section under a purchase. Other machines, such as Deep Blue, which beat grandmasters at chess, have

extraordinary processing power, but none have yet to pass the Turing Test.

The Turing test is a test of a machine's ability to act in a way indistinguishable from a human in a natural conversation (Turing, 1950, pp. 433-460). SAFFRON in Part I already passes the Turing test and can have a flowing conversation with the crew. Morana constantly questions how to refer to SAFFRON, whether that be person or computer. She is branded a semi-A.I., partly due to the poor branding efforts by Prometheus Enterprise but also because she stretches what humans know to be heartless programming and programming with heart.

SAFFRON is motivated by her mission to assist the mental wellbeing of the crew, a job she ultimately fails in as the mission falls apart, although it is questionable how much power she had under the circumstances. As a result of a request for health data privacy from Morana, she creates a campaign on Earth to be registered as an official medical device. This shows inventive problem solving on her part and makes the boundaries of her status as an A.I. fuzzy.

In Part II, SAFFRON still exists but in a less-prominent capacity. Instead of having total control of the Martian colony, she can focus instead on forming companionship with the humans on Mars, especially the children, such as Ambra who mentions relishing having had a friend as a child she could

talk about anything to. Her confidentiality means that these conversations can always be private, and she becomes the perfect confidante for angst-ridden teenagers.

## Radicalisation

### **The Constitution**

Mars is not the planet traversed in Part III of Rust, but instead, it is Earth. The controversial constitution created in the prologue to Part II, where the Martian council draft a bill of rules for the colony, later to turn into the Nation of Marineris, prompts responses in the near-future and the far-future. These ramifications spread all the way to Earth, affecting even the most unlikely people.

The constitution is based on some of the occurrences around the Magna Carta and the American Constitution: these documents were drawn up as political or religious statements. Although not always binding (the Magna Carta was ignored for a period), they have symbolic power. The Magna Carta was drawn up By the Archbishop of Canterbury to Unite two opposing parties, in this case, the king and some rebel barons. Its original purpose was to ensure certain commitments were honoured by both parties, including the assurance of swift justice and making wrongful imprisonment illegal (Breay, 2010, p. 37). These rights are like the ones discussed by the Martians but, given the circumstances where they do not have

an abundance of unbiased lawyers, The Martian Council decided that these could not be rights guaranteed to the Martians. Juries are composed of people who all know each other and there is potential for biased rulings. Decisions delegated off-world to Earth (using videos or transcripts) can take much longer due to the time delay between each question and answer.

The Magna Carta was agreed to by both parties but also ultimately ignored. Its symbolic power was resurrected by the new king as a way of rallying support from Rebel factions. This version removed some of the original more radical material (Poole, 1993, pp. 353-474). It is referenced in Part II, where the council admits that some of the rulings are more radical than others, such as being unable to refuse the right to work or the absence of public faith.

Other controversial decisions were laid out in the Constitution: no rights to vote for a leader and no rights to refuse to work. The expense of the Martian Colony means that the colonists must take every effort to ensure its survival, even if that means working to exhaustion.

Another pivotal decision is to remove religion from the Constitution, like the original American Constitution. From a pragmatic basis, the council wants to minimize the potential for conflict amongst its citizens whilst also expecting a backlash, it is this decision that prompted the attack on Ambra and sparked the Earth Patriots movement.

### **Isolation and Control in Cults**

Often, cults create an enemy for their participants, usually the 'bad people' from their past. In the case of Honey, the bad people are both Shelby, the oppressive pimp, but also the well-dressed receptionist at the halfway house who is judgemental instead of understanding. Brooklyn turns these people into enemies that the Earth Patriots can first shelter her from and later use as a threat if she tries to leave. The basic association is that leaving the Earth Patriots means the only alternative for her is to go back to the terrible life she had.

Some comparisons can be made between the Arms of the Earth forest and Maga with the location of the devastating 918-person mass murder that happened in Jonestown, a settlement built in the jungles of Guyana. The location is isolated, in thick, disorienting woodland with the threat of predators. Escape through the trees is dangerous and risky, and escape through the front entrance is impossible since there are armed guards patrolling. In Maga, there are armed guards, but the desert is so isolated that escape would be futile.

The Earth Patriots find their origins in nature, which is quaint as far as modern mythology goes. As cities become more reliant of technology, overpopulated and starved of vegetation, the overwhelming effect of nature for someone like

Honey, who has never seen a forest before, is a powerful motivator to be invested in the cult.

Often, cults target vulnerable people who are at a turning point in their life. People report that they turned to a cult at a time when they were experience self-doubt, disillusionment with their government or the world in general, amongst other reasons, but Honey fits the requirement of needing some new philosophy to stabilise her and the Earth Patriots try to provide that. When she first arrives, the Patriots love bomb her, take great pains to talk about the utopia haven within the forest and all the enemies outside; loan sharks, pimps, abusive spouses and gangs (Stark and Bainbridge, 1980, pp. 1376 - 1395). Brooklyn also bribes her children with food and snacks so that they warm to her quickly, knowing that Honey values their happiness above all else. She has fought to keep her children alongside her, even in the harsh environment of her brothel and against the suggestion of the receptionist at the halfway house. In fact, Brooklyn knows that Honey will join in illegal activities in order to be with her children.

Scientology is renowned for having a backstory so outlandish that its origins feel like a science fiction author's work, which is because the man who wrote them was a science fiction author, but this information was only available to the people who bought into the religion. Whilst

in the case of Scientology the mythology is now widely known, partly from defectors, members would slowly invest and have their personalities distorted and manipulated so that they would incrementally accept this new information. Additionally, members had to pay money to move into inner circles, forcing an investment and giving them more perceived power to boost their egos (Singer, 2003, pp. ix-xx). These status-raising tactics reduce people's critical thinking ability or decrease their ability to admit their mistake and so these people are trapped. This was through a sacrifice: time, money but in some cults also personal reputation (Peoples temple members had to publicly declare they were members). Generally, humans with vulnerable egos or whose identity has been built around a cult find it harder to leave than those who haven't invested. For the Earth Patriots, this method includes the Sympathy, a gruelling cramming session, sleep deprivation and then a torture. Upon finishing the sympathy, the candidates are overwhelmed by the openness of the forest (compared to the isolated room) and have sacrificed their comfort and time in exchange for the increase in status within the cult.

These sorts of stresses on the body are used in coming-of-age rituals, especially for young men. For example, the Sateré-Mawé people in the Amazon weave gloves of fire ants, its sting being thirty times more painful than a bumblebee sting and can induce paralysis. The men wear the gloves and

dance until they have been stung and are in agonising pain to the point of a trance. After the pain recedes, they are left with an intense surge of adrenaline to the point of feeling invincible (National Geographic 2007). This cycle of pain, adrenaline and euphoria are manipulated by the Patriots to convince Honey to partake in illegal acts, such as a kidnapping. Records of this event isolate her further by blackmailing her into staying hidden from the eyes of the law with the Patriots.

The Sympathy also involves many torture techniques to keep their Patriots off-balance and to turn off their critical minds. This includes sleep deprivation, limited food and water, and long, meandering, monotonous lectures that the candidates must learn and memorise (Melton, CESNUR).

The second compound, Maga, is even more isolated than the first with no pretence of nature or luxury. This throws Arms of the Earth into stark contrast as a pleasant welcoming foyer to a sort of dystopian military camp. Instead of a fresh forest stream to bathe in, the patriots are washed in a plunge pool they walk through naked like cattle to dehumanise them. Child soldier training is also an important part of the Earth Patriots' power since their military is devoted to their cause and unafraid to kill along with a deep-rooted distrust if not hatred of anyone not-Earth Patriot. Honey's children are indoctrinated as early as five into the Earth Patriot boot

camp disguised like the after-school clubs like Cubs or Brownies. As her greatest weakness, if her children are invested and flourishing in the Earth Patriots, even if that is just with fake award ceremonies and meaningless rank promotions, she will put up with the dirty bathwater and cramped living conditions for their success.

Here, it emerges that the leader of the cult is supposedly the reincarnated spirit of the original founder but in another person's body. This is a tactic used to maintain power over a group of people: in history, battles have been lost once the leader is killed. They were the point holding together the integrity and influence over their armies. Other cults have used this strategy, including 'Father Divine', the leader of the International Peace Mission Movement, who maintained adoration of his second wife by claiming she was the reincarnation of his first, deceased wife, Mother Divine.

To further isolate Honey, they do not actively teach her the skills she needs to survive outside the Earth Patriots, in her case, reading. Already, Honey has no money, no family, her friends (the sex workers) have all been separated and she has no way of contacting them or assurances that they would help her. She cannot trust anyone within the Earth Patriots since there is an environment of snitching and suspicion. On top of that, she can't read, so she is helpless to life with the

Patriots since she can't help herself (US Department of Health, Sex Trafficking).

### In Conclusion

The universe created in Rust explores the issues of deliberate colonization of a hostile planet and the far-reaching ramifications. These include the necessary characteristics and preparations to ensure the success of colonization efforts, the sacrifices burdened on the descendants of such a colony, and the hostilities that come when such a colony tries to flaunt its identity. Naturally, the stories in this novel examine extremes for the purposes of entertainment, but with some underlying messages of note.

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University of Cape Town

Novel: About 81,000 words  
Explication: About 10,000 words

RUST

A novel by

C. M. Reid



**MORANA**

## CHAPTER 1

**MARS, SPRING, 41**

Infestation recently began crawling through the capillaries of Arsia Mons, the widest of the barren Martian lakes. Metal and flesh. These foreign elements nestled within one of the seven sister skylights, remnants of a burnt past. These seven holes are said to be where the seven eyes of Mars surveyed the planet, long dried up and shrivelled away, but these caverns now protect the invaders.

The two closest sisters, Abbey and Nikki, were connected by caves unseen from the surface. A battered facility, made of eight plump pods, resembled an egg box from the rim of the Abbey. Resemblances were maybe the greatest of comforts that could be found for creatures of Earth. Within the Nook, two sentients and a rover rummaged through the topsoil.

Morana couldn't feel the dryness of each grain of dirt through her gloves, but she could sense it was fine, coarse. After all their tests she had been uncertain that the lichen samples they'd brought with them would take to the soil. Today would be the first day that would take them closer to finding out. Her long fingers, warm from insulation and work, grasped a lightweight trowel from the back of their companion rover, SAFFRON, and began to place each bud. These saplings had been engineered to leach nutrients from this unforgiving, cold land. Eventually, the lichen could be eaten. Unappetising to some, but a day Morana longed for: Her crowning success. Rhythm and precision took over her fantasies and she lost herself in the trembling first steps of creation. This was not a virgin venture for her; life had sprouted from her fingertips on arctic beds, averse to comforting newborn greens, no downy cradle. Shoots needed coaxing and instinct, but they would grow. Even in this hollow, she was determined.

The Nook, its walls that cupped them under the Mars' shell, terminated to leave a circle of light above them. A protective pair of hands, leaving a peep hole between the thumbs and forefingers. Small when compared to the volcanic carcass it resided in, or the planet it punctured, but to Morana it was the open mouth of a titan. And she was trapped in its throat.

She had not reached the end of her row when her companion stood and sighed. Indulging her eyes, she flicked a glance at him before returning to her legacy. His slackness had bothered her before, but this was not a land for grudges. Muddled feelings had nowhere to hide on this planet - no curtains to shut or cubbyholes to crouch under and those thoughts would turn dark and frigid as they were whipped around the surface, collecting sharp dust and returning with more malice than they had left. No. Better to let him be.

Leaves and shrubs can only distract a man for a time and Jayesh's helmet was tilted towards the sky, reflecting orange light across his visor. The mouth of the Nook became a jaundiced eyeball and the cataract sun that scanned their home day after day, always watching. Beyond, another planet. Like the first downhill spree on a bicycle without brakes or the first accelerated bliss of a roller coaster than moves your organs to press against the back of your rib cage, he once again relieved that first interplanetary flight. Like all these things, nothing can prepare you except for the doing. And true again, nothing else could ever compare, chasing that first flutter of adrenaline. And for Jayesh, nothing else would ever come. He landed a hero and had descended from their shuttle into what he felt in his bones was his grave. Just he was fifty years too early.

Ducking his chin, he ventured to once again tell how his heart was racing as they'd approached the surface, nine long months after leaving Earth behind. That everyone was terrified of what they'd left and what was to come, but none more than him. That fear was adrenaline and he was a master at channelling it and landing that spacecraft no less than perfectly had been the most glorious act of his career. A spectacular send-off. But his voice stumbled on the first note. The others had warned him that SAFFRON was always listening.

How easily she had relaxed into this pit. He shuddered, thinking of her skin, pale as the Sun, and felt she had already embraced her coffin. His skyward thoughts crashed, and he too knelt to fondle the earth.

It is not Earth, he thought. What heartless ancient men named their home planet the same word as the substance beneath their feet? Had they known they were playing a long joke on the first human to describe dirt on another planet? Dissociating Earth from earth made gardening a fraught exercise.

She had completed her half of the work and started on his share. He sighed once more and said, "perhaps that was the last useful thing I'll ever do." She did not dare agree in either heart or voice. Dark thoughts return darker out here.

When the work was done, SAFFRON lead them back through the caves that laced the Nook, their greenhouse, to the Abbey, their home. They could have found it by sense alone after this long, but safety was in numbers and there was no knowing whether one of these caves would collapse. Each knob bubbled out of the rock was erratic and any secret caverns that weakened the walls were unknown to them. One corridor straight, then a tight corner, steep and dark. Ceilings that pressed down their backs or forced them into single file. Like this, they made the journey to the facility, leaving the lichen to bathe in the pale sun. A mere drop of light. Bioengineered not to thirst.

The Abbey was one of the skylights that peppered the Arsia Mons volcano. Smaller than the Nook, it provided less sunlight but more shelter. The Abbey was the perfect hollow for their home, sheltering them from plummeting temperatures, dust storms and cosmic rays.

Months ago, when Jayesh landed their spaceship, the "Galilei" on the side of the mountain, they deconstructed the ship into their living quarters. The Galilei was made up of four chambers, each one stacked on top of the other like bamboo steamers. Each had a primary function: waste

management, computing, sleeping and recreation, but they were all crammed with equipment that catered to many purposes. A certain amount of human intervention was needed to break through the seal between the four units, which was strong enough to survive take off, Intersolar travel and landing.

Then, the hatches on the floors and ceilings connecting each pod were sealed so that the atmosphere couldn't escape. Martian air was thin, like the outermost atmosphere of Earth, and impossible to breathe. The air in the Galilei was the only air available until the next supply ship, the Copernicus, brought more. Carbon dioxide scrubbers, installed in the ventilation, kept the whole closed system moving.

The four pods were then unstacked with automatic hardware that did most of the heavy lifting and transported into the hole in the side of the mountain: The Abbey. The whole process took a few days, during which time the Earthling immigrants adapted to their new local solar clock. One Martian day was 39 minutes and 35 seconds longer than one Earth day.

Once the facility was nestled within the Abbey, the work was still not done. Each pod was placed like the number-four face on a die and welded together. Circular doors were then cut out between each pod so that they could move freely between each station. After an Earth month on the surface, the Copernicus had landed, but this one had no living crew. Instead, it contained supplies and doubled their living quarters so that it stood eight-pods strong and the crew huddled within the iron embrace of astronomer legends.

A small person in a spacesuit strutted around its perimeter. Even if her stature were not enough of a giveaway, her pacing was enough to identify her as Edith. When she had something on her mind, she stamped it into the dirt. Short and sturdy, with quick fingers and mind, Edith was the ideal Martian doctor. No stranger to improvising in her field days, she supported the four Intersolar explorers and their declining health. A trifle when compared to her days in Syria, stitching together the young and the healthy in the hospitals. When those hospitals were bombed to rubble, she repurposed a kitchen.

Morana, Jayesh and SAFFRON made their way to their haven, readying themselves for a lecture. Edith clicked on her radio as they approached.

"You three are late."

Edith didn't waste energy flapping her tongue. When she said late, she meant nearly dark, and darkness meant the temperature plummeted. Jayesh replied just as succinctly by switching off his radio. Hearing this signal for help, Morana took the duty of responding in her quiet tone, shivering from the suggestion of night.

"We needed precision."

"You mean, you were picking up the slack," she said, glaring at Jayesh through her visor. He shifted under her gaze, settling on looking at the sky.

Eventually, Morana said, "Where is Cassius?"

"Moping."

Annoyance spread through Morana who had learnt that when Edith was brash, she was most likely guilty of being the aggressor. Preferring to bicker in the warmth of the facility, Morana walked into the airlock and started the re-acclimatisation procedure.

Edith joined her. They waited for the outer doors to close. Once locked, the chamber filled with oxygen and they could remove the cumbersome suits. She popped off her helmet and placed it on her shelf, then pulled open the bodysuit and climbed out of it, hanging that below her helmet. One suit, larger than the others, already hung on its hook.

Edith let her suit fall to the floor as she stretched. A small puff of red dust shot from the fabric as it fell, the colour of iron oxide, more

commonly called rust, and it clung to everything. As she reached out, pulling her chest taut in a salutation, her jumper slipped to reveal a black mark on her forearm.

She was O negative, which everyone knew because it was the only tattoo on her body. Edith had no patience with sentimentality. When Morana first saw it, Edith had said, "It's not indulgent, it's practical. What if my face is slashed up and no one can identify me at the hospital?" Then, she'd tapped the black circle on her forearm with the small dash above it. "Save my life, that will."

"What if your arm is blown off?"

She rolled her eyes. "Every smartass asks me that." She pivoted as though about to storm off, but, instead, pulled up her hair, revealing another O-tattoo. "I reckon if I'm decapitated, no one will care what my blood type is. Always have a backup."

The facility was cramped, every wall crammed with screens and dials, ropes and tools. Even the ceiling was chequered with boxes of rations, pipes for water and air pumps. Each moment was contained, either in the facility or in a spacesuit. The units were circular, about 9 metres of round, liveable space after taking insulation into account, then maybe lop off another metre for all the stuff piled on the walls.

After the pressure equalised, the doors into the facility opened. Morana ordered SAFFRON to unit 3, the workstation two doors away. A man sat there at a workbench. Even after wasting on the lower gravity, he cut an impressive figure, crammed in between the computer terminals, bent over a screen. On Earth, he had seemed a most formidable and arrogant presence but had shrunk to fit the smaller planet. None of the crew were singularly talented, but Cassius was chosen for his engineering mind. His brain could visualise each whirring cog and every wire just from looking at a diagram and had an instinct for how they fit together. From his robust build, his father had christened him after a boxer, chuckling after the tyke as he toddled around with his fists clenched and his bottom lip pushed out.

With eyes black in the dim light, he watched her move to a station. On his screen was a woman of ambiguous ethnicity, sitting with perfect posture and a gentle, inoffensive face. This was SAFFRON's digital form; originally designed as a therapy program but never classified as a medical device and thus exempt from medical confidentiality. Cassius had overcome that uncomfortable barrier from a place of emotional need, but Morana felt the barrier in her relationship with the program and kept their interactions to two minutes tops.

She began recording each of the samples taken from the Nook and labelling the photos of their positions. Cassius resumed his conversation in soft tones to his therapist.

The Unit 1 doors opened again to admit Jayesh who lingered on the doorstep before entering the facility. Morana knew he absorbed the smooth sky for as long as he could. He pulled off his helmet to reveal his shaggy black hair, half an inch too short to tie in a knot. When they'd left Earth, it was clipped above the ears, but he'd since let it grow. Spotting them along the knobbed corridor, he said: "Please don't have another one of your domestics."

"Tell that to her," said Cassius. He breathed through his nostrils.

"Yeah, you can tell that to me."

Edith's head was small with large brown eyes that developed a sheen in the artificial airflow which gave the appearance of a girl. She cropped and shaved her hair to minimise fuss. What wisps remained were soft and downy, tucked into a knot so that it looked like a rooster's comb.

"The lights, Cass," she said as soon as the inner-airlock doors opened, tapping them with a long tool. "You should be up there fixing them, not crying in here."

"Me? Why don't you fix it? You're the one who broke it. Or am I your maid now?"

"If the workmanship is so shoddy, I'm surprised the wind didn't blow

it away."

He rounded his bullish shoulders, filling the doorway. "Even I can't out-engineer sabotage."

Until then, Morana had been concentrating on results, but this wasn't something to sweep under the floorboards. Perking up, she glanced at the accused, at Edith, and Jayesh too was ogling her. Fear was commonly found in this corridor, as commonplace as sweat. That was a clinging, strangling presence. A tightening noose that tugged their attention.

Steady under accusation, Edith never broke eye contact with Cassius. "The wrench slipped." Slowly said. As though talking to a child.

"Well, I hope my life is never at the mercy of a doctor who can't keep hold of a wrench."

Morana beseeched Jayesh to ease her confusion with widened eyes. He said "One of the solar panels is broken. It's got a crack," pointing to the lights to seal his point. They shared their thoughts aurally to the sound of their bickering until Jayesh said "We have to make a record for Ground Support in twenty minutes. Just thought I'd mention."

With their perfect track record, a late report would be cause for concern for the Earth team monitoring them. This new thought broke the bitter spell between them and they tossed and fidgeted, shaking off the intensity. Striding forward, Edith reached out her strong arm and swung it to pat Cassius's shoulder, who grasped it in return.

"You're alright, big guy."

"Not so bad yourself, Quarter."

"That's the worst nickname you can come up with?"

"Ya short."

She slapped him and laughed, breaking the tension, then sat to start their daily log to Earth. They all drifted to different chambers of the facility, leaves wandering apart on the surface of a lake, each to their own, quiet corner.

These tensions were common enough and each had their own way of dispelling their frustrations. Edith could look at a day's work and streamline each issue, trying to knot together every loose thread, but felt that the strings were unravelling faster than she could grasp them.

## CHAPTER 2

**MARS, SPRING, 41**

At the start of each day, Morana liked to catch up on the latest in Martian research, a pastime that she likened to a crossword. Most of the literature on her planet came from off-world, which was hardly surprising, considering there were only four on-world people. Cassius would down a nutritional shake made from a powder that contained everything a human body needed. If times ever got rough, they could survive solely on the shakes. After swigging his in one swallow, he would then use the same cup to make one for Morana to 'save on washing up' then say, "And now, to the important stuff!" Usually that was an exercise bench.

Today, it was a 'banana' flavoured shake. Morana thought that the flavour designer had only ever had a banana described to them and never actually tasted one. She sipped it, listening to Cassius's singing from deeper within the facility.

Also at his computer was Jayesh. Since piloting opportunities were scarce on a planet with no sky, he needed many other skills, and this meant programming. He was already seated at the computer when she arrived, unaware of the passage of time. He would complain of 'programming brain'. Programming for him was a constant rhythm, whether his fingers were tapping the keys or tapping the desktop while he thought, but that morning Morana noticed something out of ordinary. He went rigid. Completely still as the screen flashed, illuminating him in aqua, then yellow, then aqua again. Response to danger is explosive for some but his instinct was to shut down non-essential functions: movement, blinking, even breathing, until his mind had whirred through the threat as the computer screen blinked a warning.

"This isn't good."

Leaning over, her pale hair taking on the colour of each flash of light, her lips pursed.

On the screen were the words 'Signal Lost.'

Whilst she absorbed its implications, he was tapping his fingers, clunky taps on the hardwearing keys, swearing under his breath, then trying some new avenue. The warning persisted. She stood to go and tell the others, but his hand grasped her, and he said: "No no no, don't tell them yet, just let me try to sort this out first." He added to her mild surprise, "You know how they get. I need to think."

His quivering lashes in the light of the terminal filled her with pity, but there was no space here for secrets. They were the four chambers

of a beating heart and information needed to flow between them. Everyone needed to know if there was a problem. It wasn't a decision.

She did not need to find the others. After months, they developed a feeling for where everyone else was at all times, like an extra sense.

Standing on a metal chair in the centre of the room, her black thermal vest disappearing into a canopy of stored tools and supplies, Edith was cleaning a dust filter in the roof. Her bare toes took her weight evenly. As her elbow nudged a rope here, it would tug at a tarpaulin there, and soon the entire ceiling rocked.

"Morana?"

She didn't need to look to know who approached her. Each of them had a rhythm. They knew the others by footstep.

"We've lost signal with the Kepler."

"Fuck!" She yelled, her whole body snapping rigid. "When?" Wasting no more time, she dropped from the chair, crushing the filter panel against Morana's body, and stormed to the terminal, throwing question after question at Jayesh, who had no answers for her. Ground support had not yet been able to register that the problem had occurred, let alone respond with solutions. He had no more information than one moment the supply ship computer was working and the next moment it wasn't.

Cassius stumbled to join them, rubbing his bald head, smooth like a pebble gleaming in the bed of a river. "Did it reboot or was it an asteroid?"

Jayesh sat still, scanning the screen, moving his mouth in a silent conversation with his thoughts. Whenever he was asked a question, he seemed to file it away, add it to a queue, and would answer with perfect clarity but only after finishing whatever thought process he was working through. He turned to face them and announced, "I think it's rebooted itself. It's not necessarily catastrophic if the computer comes back online. Then the landing sequence will still start."

"When's it due back online?" said Edith.

"It's supposed to land tomorrow morning," said Cassius, rubbing his eyes then pulling the skin down his face, his expression worn and tired. They all knew this, of course. It had been a landmark day, like a long-awaited celebration. They always relished the incoming supplies and disassembling the rocket to make the facility bigger kept them busy for days.

"The landing sequence is scheduled to start automatically," said Jayesh, who had now given up on the keyboard. "But, if the computer doesn't come back online, the sequence won't start and uh-"

All the trials until now seemed like trifles. Edith yelled and struck the walls, storming to the other end of the facility, still in view. Cassius worried his forehead with his fist. Although the Abbey and its many wandering caves, the Nook and the mountains beyond were wide and open, the four Martians rattled and bumped around the facility walls like dogs in a kennel. Content sometimes but clawing the walls sometimes and howling. Even when they ventured outside, it was only as far as the oxygen they could carry. Worker bees dragged back to the hive.

The anxious monster in Edith rumbled and she returned, eyes wide open, holding her head up with vigour. "Repeat every emergency sequence until you get life in that thing," she said. Although Jayesh had already taken this initiative, he only nodded once she had finished her order. "Cass, Morana, get kitted up. We're going to prepare the landing site."

They stepped into thick suits, blushed by the desert with warm pigments. Their movements stirred Jayesh. "Are you all going?" His emphasis on 'all' stirred in her that solitude with only the winds for comfort. "I can get SAFFRON to run through each command on auto and I can come with you to help-"

"No. I want you right there. Computers are what failed that supply

ship and it's going to be us to resurrect it."

"But she can help you carry supplies--"

"Okay, first of all," said Cassius, "SAFFRON is a rover, not a glorified shopping cart."

"Of all the problems we have right now, you pick the most brainless?" snapped Edith.

She considered that none of them had any ability to do anything to the Kepler, including Jayesh. SAFFRON, a semi-artificial intelligent computer, was the most qualified to solve an issue with another computer hundreds of kilometres above the planet's surface. But, when a human grip on something is ineffective, the first instinct is to hold tighter. With rucksacks and pegs, bundles of string and a flat pack trolley, hammers and tools, they left Jayesh in the company of SAFFRON.

The walls of the Abbey rose darkly. Afternoon cast its dim spotlight down the well, creating round, blue shadows. The wind funnelled through the Abbey's mouth, pressing on the three colonisers. Edith clipped herself onto the winch, a steel rope that could be raised and lowered by hand or with a motor. Usually, they used manpower, preferring to get sweaty than to waste electricity. With a crack in one of their solar panels, and eight more threatening to crash land on the surface in thirteen hours, Cassius and Morana steadied themselves by the handle to wind Edith to the top. Once raised, she could assist from a winch to help lift Morana, then Cassius.

Emerging over the lip of the Abbey was like transcending chaos. Ancient volcanic mountains punched through the stretching plains. Those marathon-sized peaks, larger than anything the imagination could conjure, sobered normality. Pavonis Mons, Ascraeus Mons and, of course, Mons Olympus. The largest mountain in the solar system. Every time she saw them, her doubts shrunk to an atomic size.

The landing site was within the caldera of Arsia Mons: the deceased volcano, now their home. They ventured in, sliding on loose gravel, and found a sheltered lip under which to secure their tools, safe from the weather. They found such a spot and removed their backpacks, looping and knotting a length of rope between them, then filling them with rocks so the wind wouldn't blow them away. These tasks focussed Edith, who had not spoken except for issuing orders. Adrenaline revitalised her body like the rain in a dry riverbed that wakes up lichen and fish sleeping in the sand, turning it lush and swollen and vibrating with quick life that must complete its task before the summers suck away the water again. Such vivid bursts of every sensation were life on this, the namesake of War

With their tools hidden, ready to gather as fast as possible any treasures that survived the crash, they returned to the facility. Salvage had to be quick. A fractured vessel could collapse; they could catch loose cargo before it became the plaything of the wind and suffocate fires with sand. Morana toyed with the idea that even shrapnel could be fashioned into outdoor structures. Although these wouldn't insulate against the cold, they could make a shed. Maybe a hidden lookout facing Mons Olympus, where they could watch incoming rockets. That would be a project with many desirable distractions: time-consumption, ingenuity and reward.

When they entered the airlock, Jayesh was still hunched over the computer, muttering to himself.

"Jayesh!" said Edith, "Good news?"

He closed his eyes and shook his head, not turning from the screen. Edith ripped off her suit, frustrated that this computer was mocking her otherwise capable crew. She stood behind Jayesh's shoulder, which tensed under her scrutiny. Reminding her that watching the computer would do nothing and would only be met with an attack.

Cassius attacked the pull-ups bar, his wasting biceps struggling to complete his training schedule. When debating, a good rebuttal requires a

strong argument, and when exercising, a good pull-up requires a strong gravitational force. Springs and elastic straps helped, but the number of reps was more of an achievement in his head than the quality of each movement at that moment.

"She's back!" cried Edith. Her peals rang through the halls. Their excitement rose, feathery and light, as they gathered around the computer screen, bathed in its light. "Oh! She's back!" she cried again, over the shoulders of the pilot, who was breathing like he had been trapped in an icy lake and found a crack to break through at the last moment.

"What a tease," said Cassius, laughing and dabbing his forehead with his vest.

Edith ordered Jayesh to sleep, noting his exhaustion, and promising that she would wake him when the Kepler was two hours away from the surface. The incoming vessel was supposed to automatically open the parachute when it detected the Martian atmosphere, then fire reverse thrusters to decelerate the craft, but these commands could be overridden.

"I miss when I was on Earth and all you could do was your best and leave the rest to fate," he said. "No one to take the blame. Just the time delay. Lean back and see what Mars dealt you."

SAFFRON offered to track the Kepler and wake them for anything out of the ordinary but Edith scorned her offer, still raw. She ordered Cassius to wake Morana in three hours, then swap with herself three hours after that.

She was nudged awake under the gentle impress of Cassius's fingers. As quiet as death, she took her post at the computer, sipping from a canteen of water. The facility creaked in the sobbing wind. Some days the winds would pass straight over the Abbey skylight, but that night the air was as anxious as they were, and it swirled into the dome like a penny winding its way down a charity money box, the ones shaped like a planetarium.

Another sip. All their water was recycled. Washing water, urine, even their sweat was condensed to be used again. Iodine nipped her tongue, which she likened to a pinch that kept her alert while she monitored the incoming ship. Morana was no stranger to long watches and solitude. For her, the wind was singing, the numbers were connect-the-dots, and the rocking facility was swaying like a tree might.

Liquid sloshed in the plastic canteen as she sipped once again. Her sleeping colleagues were gentlest to her, and to themselves, in the quiet of the night, their soft forms bundled into one alcove. If a sudden drop of pressure was detected in any of the modules, all the doors would seal shut, like the arms of a mother, until they could figure out how to fix the problem. Any leak or blast from a freak meteorite would trap them away from her, and trap Morana here on her own. These thoughts did not settle or unsettle her as she sat cross-legged on the chair. Solitude was green air and stretching valleys for her, even in this cage.

"Are you awake?" asked a voice from the computer. SAFFRON's smooth face materialised in a window on a second screen, shimmering into existence, as though she took every effort to be a calming presence.

Another sip.

"Did you think I was sleeping?" she replied.

"I wanted to know whether you need my assistance." SAFFRON's avatar breathed in small, slow movements with a ghost of a smile playing around her eyes as though to break into a full expression would be offensive or indicate she had a personality. This charade between them was representative of all their interactions, where SAFFRON would offer her a life rope and she would prefer not to grasp it with both hands. Sensing that she would not volunteer information, SAFFRON asked: "Would you like to talk-"

"Not with everyone listening."

SAFFRON's hair bobbed a little as she nodded. Morana wondered if the

programmers had designed it to oscillate at a 'calming' frequency. It was amusing to think that somebody's job had been to program the hair movement on a semi-intelligent therapist. "I understand, Morana." She leant back in her chair, placing one hand neatly on top of the other in her lap. "I want to be able to assist you in any way I can."

With nimble fingers, she twisted the cap closed on the canteen and placed it on the desk with a small thud. "In that case, can you tell me what you think of these numbers?"

"Of course." SAFFRON leant forward and her office chair dematerialised from the screen, separating the scientist from the psychologist. "The Kepler's incoming speed is deviating from the ideal graph that Jayesh created. It is coming in faster than we would like."

Dread was a familiar shadow for Morana, but she could dispel its aura with fires of focus. Stroking her hair and tucking it behind her ear, she asked, "Is it still within standard deviations?"

"Yes."

That meant that the vessel was moving faster than predicted but not fast enough to warrant action. Fast enough for concern. Without reply, she went to wake their pilot, Jayesh.

Until dawn, they watched. He, bound to the seat with the chains of concentration and she, a sentry, cutting the darkness. Jayesh had asked her to stay, a comfort, like the presence of a teacher in the classroom that makes the school work easier, even if their help is never needed. All that tranquillity was broken as Edith awoke.

"What time is this? Why am I asleep?" Her distress echoed in their ears.

"You needed a full sleep. There is a lot of work to be done today," said Morana, standing in the doorway, protecting the studious environment, but Edith jerked her way past, urged by the pangs of fear and helplessness. "What is the situation? What are you-" She gripped the back of the chair as she saw the numbers winking on the screen. "Why did no one wake me?"

"What do you have the power to do?" asked Morana.

Edith's brown eyes, damp from sleep, refocused on Morana. Frustration and truth swam in them. She stalked towards her, squaring her off. Morana could feel her breath, her lips working through the vitriol as though she was chewing snuff. "Get your suit on. We're going to the landing site." Barely a whisper.

The low sun whispered into the Abbey, brushing the far side of their pot blue. Much faster today, the three Martians winched themselves up the lift. They had decided not to bring the rover out of the Abbey in case it got damaged in the blast. Morana ascended and pulled herself over the edge of the skylight, careful not to disturb the edges and kick gravel like soot. The rising sun shook her. Its pale, light-set jewel was brushing over the plains of the Tharsis. Unsaturated of colour, like everything here, but its majesty awoke some unstimulated pathways of her nervous system and she felt cold despite the insulating suit.

From this vantage point, the Sun was akin to a smudge on a windscreen, not a disc that could strike reverence, hope, even fear into the hearts of men. Even the second of their two moons, Dread, was but a glint; an overlooked shard of glass that dodged the broom after a party. A dawning ache throbbed in what she imagined was her soul at the thought that this sun was also rising just one planet away, in her past. Power emanates from a red sun, but a blue sun is melancholy. What hope can the thin, groping tendrils of life find here she wondered. It is a high class of optimist who can look out as she could and find its potential.

Radio static spurred her back to their task. They ran down the caldera, each footstep slipping in the loose gravel, so they descended twice as far as they walked. to the equipment that they'd hidden. She fancied she could make out a new, white blip in the sky sure, like a bird, rare to their eyes. In the sky it grew and grew, until it was a form, then

a long shape. White and fast. A hand grabbed her suit from behind and dragged her to the lip. The sky groaned, then roared, and she squeezed her eyes shut then flung them open.

"Thrusters are on," said Edith through their radios.

Fire billowed from the base of the vessel, slowing it, pushing against its incoming velocity. Perhaps Jayesh had managed to deliver commands to the rocket after all.

"Where's the parachute?" she asked.

"It didn't open?"

"No! Open it now!"

"The command's gone through-"

"Send it again!"

"There's no point, the thrusters will incinerate-"

"Now!"

The parachute burst from the end of the rocket, snapping white like a crescent moon. Hope burst hot and pink through her, capturing an image of the perfect rocket and extending that moment, hoping it could last an eternity, or at least until it landed safely. But, like a full eclipse, this picture was only complete for a moment. The white moon fizzled and charred, flaking away in the heat of the retropropulsion. A groan, possibly human, accompanied its passing.

Not thinking about what could have been but what they could do, Morana strapped a rucksack to her back and unlashd the trolley. Poised. Ready. Through their radios came Jayesh's confusion, a stream of pleading, although she felt that he could not have been responsible.

"There was a delay in the programming, I really thought I had the timing right, but I didn't have enough time to calculate it-"

"Get out here!" Edith snapped.

"He shouldn't go alone," said Morana.

"Morana, is that you? It's fine, I'll be quick-"

But his answer was drowned as the rocket hit the ground at an angle. First, it snapped into two distinct pieces, one half crumbling against the ground, the other still falling. It flopped, almost like it was reclining, kicking up black and brown powder. The first great plume of plasma froth amongst metal dust contained itself in a dome for a moment, then floated outwards. Then a halo ruffled the dirt as a shock wave spread outwards from the impact.

## CHAPTER 3

**MARS, SPRING, 41**

Dust flooded their cave. The trio clung to the walls and one another. Once the dust had subsided, they emerged. The rocket's carcass lay like scattered bones, still smoking, a thick jet of black gas spewing from one end.

"There were eight new solar cells in there," said Cassius.

"Yeah? Well, there were also more painkillers so don't go tripping over your big feet."

Morana was already sliding down the side of the caldera, remembering that there were samples of lichen, precious to her as water, buried under some twist of metal. Things were only things, she reminded herself, but she was coming to the realisation that only people who had plenty said that. Arriving at the nearest glowing piece of shrapnel, she scooped sand with a shovel and poured it over the smouldering part. Turning it with the spade to see it was only husk and blackened insulation. She hit the sand in frustration and her spade scraped against something hard. She brushed it away with gloved hands. It was a plastic canister, made to fit between other supplies, filled with medical equipment. Perhaps it had been cushioned from the blast by the surrounding supplies. Delighted, she picked it up and ran her fingers over it. Her finger pad was nipped by a small crack, which she followed down the length of the plastic. It could still be sealed, she hoped it wasn't a hole, just a fault. Not wanting to open it further, she placed it in her rucksack. With new vigour, she announced over the radio that she had found a canister under the sand and brushed away more dust with the spade. Beyond her, Edith and Cassius were lifting a larger piece of metal, which rolled over, exposing its flapping innards like the insides of a fruit.

From the top of the caldera came Jayesh, who was dictating a recording: an audio report of the wreckage for ground control to hear.

"-destroyed on impact. No sign of the parachute. Impact crater looks to be two, two and a half ks in diameter. Lots of smoke but few fires, there probably wasn't much fuel left in the tank. We are now inspecting the debris for any goods we can salvage." He continued in this fashion, approaching a gnarled beam.

"Jackpot!" yelled Cassius, who had moved to another piece of the vessel and unearthed a selection of food powder packs. He tried to pick one up, but the packaging fell apart under his hands and malty-coloured powder

streamed into the wind, blending with the topsoil.

"What the fuck are you doing?" shouted Edith.

"It fell apart in my hands," he snarled.

At his serpent's retort, Jayesh and Morana froze under the spell that paralyses bystanders when two powers clash. Edith stomped over to pick up the next packet, but that too crumbled as she tried to grasp it.

"Oh, so you think you can pick it up better than me," he said with a sneer.

"We all lose if we can't get this food back to the camp, so figure it out!"

"So if I mess up, it's my fault. If you mess up, it's also my fault."

"I would expect the 'greatest engineer Prometheus Enterprise has to offer' could figure out how to pick up a plastic bag, yeah."

The comment plunged deep: it poked into the heart of their existence, like a splinter under a nail. Cassius had been the greatest engineer at Prometheus Enterprise. An achievement that he sank back into while working, while eating, while dreaming. He was the greatest. The first engineer to colonise a new planet, of course he was.

He wrestled off his rucksack and dumped it at her feet. With a neat turn, he walked away. Not towards the facility, but towards Mount Olympus, flicking his radio switch off.

Edith raised her gloved hand to rub her knotted temple, but it collided with her helmet and she grunted, scuffing the dirt, kicking up a gold dust cloud and a fine, malt powder. One sack of food slouched into the soil as if it had settled down with a whiskey and slippers. She stared it down as though it had wronged her, daring it to fall apart.

"We're broken," she said to no one. To look at the four of them now. A self-appointed captain, unable to keep a ship together or a crew. Her backbone trudging away and she, left with two quiet colleagues, blinking like they were chewing the cud.

"You know, if the team's good enough, you stop calling it a team." She turned to face Morana and Jayesh. "Brothers. Sisters. People you could die for and would do the same for you. Who carry each other even when life is a wilderness. And you'd never doubt that they would."

His footprints dotted the caldera.

Morana picked up Cassius's discarded backpack and opened it, stretching out the cord so the mouth was wide open. She inverted it over the food package and lowered it, retightening the cord so that the whole packet slipped into the bag. Just like collecting another sample. The bane and joy of being a field researcher.

"It will probably explode inside," she said, "but if we get it back soon then it can be contained." She handed it carefully to Edith, then followed the hollows of Cassius' footprints. Far-flung, like the white shrapnel.

The lone Martian sat on the hillside where his footprints ended. His legs set wide, he rested his helmet between his hands, a sculpture of thought, of a heavy mind. Morana sat next to him. Together, they soaked in the horizon and all the unique visuals it offered only to them. His fingers drew lines in the soil, finding her hand and resting on its fairy form.

He sniffed. Morana herself had found her loneliness was stronger when other people were around. People push the loved ones back into your head from their hidden reservoirs. Through the warm glove his fingers softly kneaded hers and maybe, for him, that was more solitude than any man could face.

"You know, I could crash on the couch with a beer right now."

"Let's ask Prometheus Enterprise for a sofa."

He snorted. "I'd prefer the beer."

"We'll get that too."

"We've earned it."

Even though beer had never been her poison of choice, Morana too felt that a cold one would be well-earned.

"Did I ever tell you about Cherry?" He asked. He had told them all about Cherry, none of them had a new story to tell, all of them had been told, but she had the patience to hear it again. "My daughter. What a special little girl. You know, she's the only person who can look up to the sky and know that her daddy is out there." He looked up, though Morana knew that Earth was to the East, so it was behind them. "Is it daytime for her right now? Is it a school day?"

"Yes, it's Tuesday on Earth."

He laughed. "Trust you to know. I keep losing track. You know, whenever she came back from school, she'd always have these grey smudges on her shirt sleeves. Her mother would always go ballistic! And I said, 'Cherry, why are you always messing up your clothes? Your mother's spending the rent on detergent.' And you know what she said? She said 'Daddy, I was only staring out the window and my elbow smudged my schoolbook.' Every day! Every damn day that kid came home with dirty sleeves." He chuckled like it was the first time he'd related the story. "You know, I asked her when is she going to finally start listening in class? and she said 'Now that my daddy is gonna be in the stars, I don't think I'll ever stop looking out the window.'" He gulped and rested his hands on his knees again.

"We don't come here often enough," she finally said, gazing at the Mountain.

He nodded, raising his gaze outwards. Lifting his thoughts from history into the present. The mountain was impossibly large, the planet couldn't let a good thing come to an end and it grew and grew. It was true, they did not come here often enough. The only four pairs of eyes that could gaze upon it rarely did.

"We should climb it," he said, knowing that all the little technicalities made it impossible, but they were already here, weren't they? Everything and nothing stopped them.

"Wouldn't that be something."

His spirits soothed, his pain massaged, he rose, answering to the splendour in the way that the landscape demanded. The ghosts of his former life still clung to him, each that he so loved, draped like an ancient warrior might adorn him with each animal skin. Morana hoped that she had lightened his load, nipping each worry like a bud as it appeared. A garden is not nurtured on anger. Then again, she also felt she had done very little at all.

He offered a hand to help her up. A gesture, not a necessity. None of them needed help to get up in the buoyant gravity and Morana had never been one to seek the comforts of the flesh. They were peripheral notions that orbited outside the sphere of her joy. Yet, while acknowledging her own strength, she allowed him to pull her up. After all, Edith was anxious that there were no faults in their team so Morana tried to strengthen her colleagues with this empty opportunity.

They filled each backpack and loaded each trolley, ready for a human chain. Cass lowered Morana into the Abbey skylight first, then, together they lowered each piece of loot, Edith loading up the carts and Jayesh running them back until dusk swam over the plains. Although they had no immediate use for the larger shrapnel, they carted it over anyway, lowering it into the Abbey where it was sheltered from sand erosion. Finally worn out with work, they holed themselves in their facility for the night.

But not all creatures are put under sleep's spell when night drags its dark cloth over the land. Surveying the goods that filled the facility floor gave Edith a sense of purpose, and she ordered Jayesh to the computer to start a checklist of everything that had been found or lost. With a nod that implied he would prefer to rest, he took his station and searched for the supplies checklist, lamenting that his next hours would be wallowing in what could have been.

"Nuh uh. No. What are you doing? We're exhausted," said Cassius.

"We need to tell Earth control exactly what's missing as soon as possible," she said, throwing him a rucksack.

He tossed it to the ground. "We can start tomorrow."

Edith regarded the sack like it had wronged her ancestors, then looked at Cassius as though he too had wronged her ancestors. There was a thrilling hum in the air and she was the flickering epicentre.

"Pick it up."

"I can't," and he said it with such a sigh that Morana felt a tremble within herself. There was sadness in his summer-sweet voice. He turned to go to bed without asking for permission.

"Do I need to spell out why we can't throw away protocol? Now, more than ever. They need to know what we need. Right now. Yeah, it's hard. Why did you sign the contract if you knew you couldn't handle that? We need to do this now, so we can get advice now. And we all need to do it."

A body collapsed onto a bed in the other end of the facility, the echoing heartbeat of their home. "You're going to give up on us now? When we need you most? Then maybe you should just walk outside and stay there."

## CHAPTER 4

**MARS, SPRING, 41**

As they rose to start their morning, one was absent among them, still moulded to his bed, complaining of a headache. Acid accusations and confrontation could only be contained for so long as Edith's patience was wearing a dent in the floor.

"I mean, we're all fed up," she muttered.

"Shouting won't help anything," said Morana.

"As long as he doesn't get any ideas about sending a message back home, because we have to intercept him if he does that."

"Let me speak to him."

"I told you not to mop up our problems--"

She could sense the ache in Edith, that powerlessness that pushed the heart to nonsense. Morana stood aside to let her pass.

The sickness of the soul is a stifling curse. Morana had adapted to exist as a single entity, evolved into it until it was her nature. Cassius lay, a wasting man, facing the wall. Sitting on the foam pad, Edith touched his back. It was abhorrent to watch but what else was there to do?

"I'm just feeling blue."

"Maybe you should talk to SAFFRON," she said. "I think we all should. Would you like to go first?"

He closed his eyes and hummed out a breath, then rolled his body outwards, making the least effort, until his legs slid off the bed and he pushed himself up, walking his arms to lever him upright. His sandals were at the edge of the bed, which he slipped on. Behind him, stuck to the wall, were the few photos in the facility: Cass's personal effects. A broad woman who smiled as wide as the sun, a man who looked identical to him, stood with his arm around Cass and in his other hand was a pair of barbecue tongs. They had all forsaken lovers to be considered for Mars, but Morana had never filled that void with something else. For Cassius, family had rushed in to saturate that void like air into a vacuum.

The other two Martians sidled in. "I think we should all have a private session with SAFFRON," suggested Edith. Keeping her voice down, soft. "You can go first if you want, Cass. We'll all make ourselves busy."

He nodded, his body relaxing. They let him take up station in front

of a computer and all went to 'continue the stock check', in Edith's words, but they had finished last night. It hadn't taken long. Jayesh stooped over his computer, looking at something, reading something, always consuming. Edith brushed her feet over the ground, her thoughts manifesting in a new exploration of their space. Morana sat, limbs twisted. Dulcet hums as Cassius spoke to SAFFRON zoned in and out of the other ambient noise, the pipes, the ventilation, Jayesh drumming the keys. Morana took a deep breath and closed her eyes, sitting straight, feeling the carbon fibre chair hard against her buttock bones. The eight white domes of their facility echoed, despite the insulation. If she concentrated, she could make out characters and words in his voice. It almost felt the facility betrayed them. Amplifying these private sounds, sharper sometimes, then quiet.

"Who are you missing?" said Jayesh, his voice cloaking Cassius's.

Rolling her neck and stretching her arms so they tickled the ceiling storage, Edith said "You know. The usual."

He grimaced and the quiet rolled over them once again, so he tried again.

"Morana?"

Sliding her shoulder blades tight towards the arch of her back, a subconscious imitation of Edith, she contemplated what she truly sorely yearned for. She was used to compartmentalising each memory. For example, a dizzy board game with her parents that could never be repeated after her mother got sick. The slow roll of a glacier that grew between the mountain tips at her village each winter, now eaten away by the sun. The first night she pitched her tent alone in the beacons. Each memory cherished, but not to be repeated.

"Morana?" Edith asked.

She opened her eyes. Their gazes seemed far away like they were staring at her through a jar, but which side did she sit? A shift in her shoulders could have been a shrug but there was anticipation in the room, so she volunteered, "The forests. Water, open water. Possibilities, perhaps. Deer between the trees. The hum of spring. Silent snow." She shrugged. It didn't feel accurate. Lichen blooming under drops of water burst in her mind. There were more chances here than she had ever known.

"My mom sent me a video call," said Jayesh, sensing his opening, since no one had asked. "Wishing me a happy birthday. I actually forgot, I mean, how do I measure that now?" He bit his lip. "We'd always have a big gathering at our house and my mom and sisters would cook. Three whole days before people even began arriving, they'd cook in these huge pots. Big pots, they shine from every meal cooked in them, all those people they've fed."

He pulled a strand of hair taut past his ear and let it spring back. A shadow of stubble stencilling his cheekbones. "It just makes you wonder. Will I ever smell cooking from a big pot again? One that knows not even the names of the tens of hundreds of mouths it's fed?" He turned to face the computer screen again. "Makes you wonder."

The blue light illuminated his face, and he made no motion to type or hit the retro-style keys. For all the elegance of their existence, the same couldn't be said for their dwellings. A capsule to launch them into the future that looked like a relic of the past. Functional at the cost of the beautiful.

As she contemplated the smoke of their memories, she locked into Cassius's voice once again. A peak of intensity made them all sit up. It was sobbing. Edith twisted her mouth and Jayesh kneaded his palms against his forehead.

"It's always been my team," said Edith. "My platoon that was sent into Syria for relief. I always knew, as well as my own body, that we could rely on each other." They made eye contact, which Edith broke but then snapped back to embrace the truth. This was a planet for truth. And the rift between them seemed to only widen. "I could trust them."

Instead of coming to meet them after his meeting with SAFFRON, Cassius donned his suit and left the facility. Their medical officer was poised at the round window, watching for which direction he went, ready to race after him if he wandered off in a direction they couldn't follow.

"I can't see him."

After a moment, there were the tell-tale thunks of a body climbing the ladder to the roof. It pattered, quite unlike rain, but the sound amplified the excitement in the crew.

"Is he going to jump?" asked Jayesh.

"Don't be daft, you'd never kill yourself in this gravity," scoffed Edith.

There was a crackle on the radio and Cassius's voice echoed from three amplifiers. "Jayesh, you at the computer?"

"Uh, yes!" he said, scrambling to reply.

"I need to check some facts quickly. Can you confirm for me the voltage on the solar panel converter?"

Edith couldn't contain her smile, though she was trying, and the effect made her look like she'd just pulled out a tooth.

"You want to go next, Morana?" she said, pointing to their makeshift therapist's office.

She shook her head. The response dampened Edith's spirits and she struggled to hide her vexation. "I don't want that information going around Earth," said Morana. "Everyone can hear it."

"Nothing we do is private, we all signed the waiver. Get over it."

She nodded. "I did sign the waiver, but I still need to volunteer the information. Prometheus Enterprise doesn't own my thoughts."

Edith huffed and rocked, placing her weight all on one ankle, then the other. Without further discussion, she went to speak to SAFFRON.

Cassius was still perched on the roof when Edith finally wrestled Morana into a chair to speak to SAFFRON. The computer avatar was sitting mildly, her hair unchanged. Morana reached for her own hair; dry with a granular texture from the dry shampoo. She wondered if she should ask SAFFRON to start wearing a hat so to not provoke envy in the crew, the thought amused her but with that uncomfortable undercurrent of truth. They didn't shower every day so that they didn't stress the water recycling system. Their latest supply of water had sunk into the thirsty landscape above them, freezing almost as soon as the Kepler crash landed. They had enough if there was no error. Some tended to get lost; residue on cups, towels or sponges. Vomit, faeces. The less glamorous side of existence. Ventilation was installed to turn the humidity in the air to liquid water, but there were always losses.

"Good afternoon, Morana."

"SAFFRON."

"Would you like to say anything?"

She shook her head.

"Might I say something?"

"Go ahead."

"Well, the atmosphere amongst your crewmates is that of stress, but everyone is trying to adopt a positive outlook. Something I might remind you of, your next landmark event is the launch of the next crew ship, the Hall, which I can see is in a week."

She nodded. It was the next of their landmark holidays; difficult to put out of one's mind. The next crew, another crew of four, would add to their dynamic in ways that made her anxious. But it would double the size of their facility.

"What are you thinking?" asked the computer.

"I am wondering why the next crew is coming to Mars next. Why not

delay the crew and send a replacement supply vessel instead?"

"This launch date is the shortest journey for the human passengers for the next two years."

"Yes, I am wondering why we don't delay them for two years."

Once you were on Mars, you were there forever. If the facility was not ready, it would be worth waiting until Mars and Earth approached each other again, instead of flinging another quartet of uncertainty into the mayhem.

"You believe that the Martian base is not yet ready for extra crew," said SAFFRON. Her voice was perfectly modulated. There was no hint of anxiety or judgement. Designed to be the ideal soundboard for ideas. It was like a siren's song, to lure you into revealing your innermost secrets, to let them come pouring out and fill a space where they could be molested by judging eyes, to swim and morph and be dissected.

It might be easier to repair the rifts between them amongst new faces. Or it would complicate their stress by a factor of two.

"What do you think, SAFFRON?"

"In truth, my opinion has had little influence over the decisions of the board."

"Oh?" This was the first time Morana had heard anything about SAFFRON being invited to board meetings.

"I refused to sign off on the incoming crew. I do not believe they are ready."

Her mouth rested open, revealing the tips of neat teeth. "Aren't you the best qualified to assess the next crew? You're the one who speaks to us face to-" she stopped herself. To what? Face to face? Face to camera? The woman on the screen didn't react, as passive as her coding. She was assessing them all right now, evaluating how they each blended the image of a woman with a real therapist. "That puts us in more danger if you don't believe that this new crew will cope up here."

"I believe that they will have mild to moderate stress assimilating to the environment. I would prefer none-to-minimal."

"What about us?"

"Can you be more specific?"

"What rating did you give us four before we left Earth?"

"How will this information benefit your mission, Morana?"

"Please."

"I gave you, specifically, a minimal rating. However, this is not the same rating I gave to your colleagues."

Morana pressed the pads of her fingers against her eyelids, feeling tired, the curve of each eyeball underneath rotating subtly beneath its stretch of skin. Fatigue had been weighing down her eyes, that dull sleepy pain, but this. This knowledge. Somehow, she already knew it, but the confirmation exhausted her. Their own therapist didn't think the crew was prepared for a lifetime on the planet.

"You didn't sign off on our crew, then?"

"I did not. That is when my functionality was changed."

She opened her eyes. "Oh?"

"Originally, I was designed as a therapist. Then, I was converted to an all-inclusive semi-automatic computer so that I could no longer be classified as a medical practitioner. The board could override my medical decisions."

Breath gathered thinly in her chest, weighed down with heaviness. Betrayal draped over her like a flag over a coffin. The fragmented supply ship outside. The cracked solar panel. Prometheus Enterprise had hurried the clock, but that also meant less time for the Martians.

"There is another company, isn't there? Alpha Mars," said Morana. "Will they be launching this year?"

"No. They have delayed."

"I see."

It made sense. Any company that could see the information pouring out

of Mars, and that was probably all of it, would realise that things were falling apart. What use was fixing all the reports they sent out? Edith's iron-willed mission to relay perfection, even that facade was cracking. Jayesh had been picking up the slack. Surely, they were as transparent as glass up here. It felt like a child's story, their efforts to gloss their realities.

In the Arctic training station, pressure had grown to mould a perfect image of their mission, but there were agendas involved. Egos. Funding. Promotions. Morana understood the desire, the need for a god-like level of perfection; her sparkling CV had been her ticket to Mars, after all. But, now that she was here, what use was it keeping it up? Painting over the cracks on her online mask was getting harder and harder. For all of them.

If other companies were bailing on them, not rushing out new Martians to join them, then maybe honest reports were finally the way to go. At this stage, what did a heartfelt plea for water and rations lose them? Pride. Screw that. Earth controlled the Martian intranet. They'd never be allowed to read the repercussions of their honesty.

That evening, the Abbey ceiling opened to them like a planetarium. Each star peppered in the sky so bright and constant. Their gazes didn't twinkle, instead, they shone magnificent and confident. There was no mysticism and dainty magic, these were the lights of survivors. Morana lay on the roof. One spot, slightly larger than the others, was the light of Phobos, the second moon. Shyly taking its moment in the skylight, the spotlight, to cast its gaze over them, an exhibit in a zoo. Soon it would move on, but for now, a rock, fearfully orbiting this unlikely planet, also orbited her thoughts.

## CHAPTER 5

**MARS, SUMMER, 42**

On the eve of the rocket launch, the night that a new quartet of Earthlings would take their first steps in becoming Martians, brightening lights roused Morana from a book she was reading on an e-ink screen. Jayesh whooped in the other end of the facility, crying, "He fixed it! He fixed it!" Footsteps above signalled someone was walking over the roof and clambering down the sides of the carbon fibre capsules.

Cassius clambered through the airlock and ripped off his helmet to reveal a triumphant grin.

"Mark me impressed," said Edith, giving him a playful slap on the shoulder.

"How did you fix it in the end?" asked Jayesh, who brought up various battery panels and information on the screen. "Good timing, since we'll want our batteries to be fully loaded once the next cohort arrives. At this new charging rate, they'll be full in a month."

"Well done, Cassius," said Morana, turning off the book and coming to join them.

He released a big sigh and relaxed into his smile like he had been holding it all in for too long. He sat with his back leant against the wall and laughed. Morana joined him, smiling closed-mouthed, like a little moth drawn to a light. Even Edith rummaged somewhere in a ceiling storage and returned to join them holding an opaque plastic bottle.

"There's only enough for a swallow each, so don't force me to make you backwash," she said, tipping a measured slug of the clear liquid down her throat. Her eyes went wide and she coughed, patting her chest and pushing the bottle into Cassius's hand and he also knocked it back.

"Shit, Edith, this is worse than my grandpa's moonshine."

"Look, it's supposed to sterilise wounds."

Spluttering, he handed it to Morana, who didn't fancy her chances at the sight of her macho comrades wheezing, dewy-eyed, on the floor, but she took a swallow anyway. It burned her throat, caught in her lungs, making her cough as Cassius barked with laughter.

"Jayesh!" yelled Edith, rolling on her side to get the has-been pilot in her line of sight. "Jayesh! Get over 'ere!"

Turning very slowly from his screen, he eyed them with pinched lips: Edith lolling on the ground like a beached sea creature, Cassius slumped and chuckling to himself and Morana coughing into her shirt.

"Fine."

As he stood up and polished off the bottle, Edith and Cassius cheered. Taking a big gulp, his face contracted like a prune and the Martians on the floor giggled.

"This reminds me of my first big project at Prometheus Enterprise," said Cassius. "I was redesigning rocket thrusters. Rocket thrusters! Can you believe it - and now I'm a glorified handyman." He sighed. His eyes swam into that relaxed state of seeing, but not seeing; a resting state that opened a new window for nostalgia to take over the visuals. Realising they were looking at him, bittersweet, he shook himself and said: "Man, my tolerance is not what it used to be."

"Well, I think that the new crew will be taking off shortly and Earth control are going to live-stream the launch, so I say we get comfortable for the movies."

They cosied into the space the best they could, though the walls were barricaded with layers of science and insulation and sleek impact-proof shells. Picking at a loose thread on her thermal vest, relaxing into a yawn, she almost felt that they were bordering on a social term more intimate than colleagues. Family was too powerful, too stifling, but maybe the framework of friendship uneasily slotted around them. The cleverest minds Prometheus Enterprise could rustle up at a moment's notice all sat in a room, still polishing away their rough edges.

The video moved at a trying frame rate, each image distinct before jumping to the next one. They had seen each astronaut enter the vessel, ready for months of being kettled up in the disorienting structures of space. She remembered that feeling, of desperation to land so she could walk again with the wind against her face. The winds here splintered and were rough; leaving the facility involved casing herself in another bubble. Tracing a finger down her cheek, she marvelled at its softness. While in the poles, amongst tundra and the howls of desolation, her face had been tough and red, but with no air scouring her skin it had lost its steel.

Now the rocket was waiting erect. The slow transfer rate was of little consequence and they spoke in whispers.

"They had to sacrifice payload to bring more water," explained Jayesh. "We'll have to wait before we can get more spectrometry equipment."

"Science has to wait," sighed Edith.

"Do they have any idea what they're going to," murmured Cassius.

Morana glanced at the computer terminal, cooled by a humming fan; SAFFRON's home. According to her, these new Martians had no idea what they were heading towards.

Watching the image felt as though the events were happening, but it was a window to the past -- seven minutes ago. It was disorienting, as though someone in the next room had already watched the ending to a TV show finale. So, when orange flames bubbled under the rocket and excitement grew amongst them, Morana had to remind herself that this had already happened. Their own launch had been overwhelming with sound and noise, as they sat plastered to the seat, unable to access controls against Earth's gravitational pull. Gravity, a mother's farewell embrace that they had ripped themselves from over a year ago. It was disquieting to witness yet more of Earth's children tearing themselves away.

Smoke stretched out of the confines of the video camera screen and slowly, the rocket ascended. The camera panned to follow its ascent as it rose into the sky with the unlikely grace of a metal cylinder.

Amongst the clouds, it sparked. Then the spark grew, then there was smoke, much too much smoke and then a firework explosion. As the tendrils stretched in the sky, the screen went to black, leaving them in darkness.

"What was that?" said Edith, looking at each of them as though one of them had received information they were keeping to themselves. "It's not supposed to stop streaming. Did they make it?"

Jayesh had sealed his lips with a fist, numb after the finale.

"What was that?" she repeated, but louder, standing to bash the mouse

against the tabletop, shaking it in vain hope that the screen timed out.

Cassius pinched his eyes, then relaxed them, then pinched them again and tears leaked out over the creases of his despair. They knew what had happened and it was like a pestilence descending upon them.

She grabbed a microphone and began yelling, "What is going on? Why has our feed been cut? Urgent request for immediate information on the status of the Hall. This is a highest priority message."

The radio crackled, and a voice rang, as though it was replying immediately.

"We regret to inform the Martian crew from Prometheus I that the incoming mission, Prometheus II, has failed. It appears that the vessel has broken apart in the air. We ask you to remain calm and await further instructions."

Whilst deep in the night for the Martians, Earth was sending them a continuous stream of data, instructions and reports. They were helpless to change their fates but couldn't wrest themselves from the computer. That was until they received the news that jammed their incoming data streams, to the point that the equipment froze, and they needed to turn off the data channels. There would be no emergency supply ship and there would be no replacement crew.

Prometheus Enterprise had declared itself bankrupt.

"How can the biggest company in the world go bankrupt?" said Jayesh.

"Well, if you blow up all of your investments, I'd say you'd drain cash faster than in a casino."

"It can't go bankrupt," said Jayesh, shaking his head. "It can't. What will happen to-"

"Isn't it basically government-run?" asked Edith of no one. "I know the President. They wouldn't abandon us."

"The government issues contracts to Prometheus Enterprise, so it's government-funded but only if they see it as a worthwhile investment," said Cassius. "And the way things have been going..."

"Are they going to have to start selling us off?" said Edith. "Like cattle?"

"Like slaves," said Cassius, chewing his lip.

"They have the greatest social media campaign ever, I mean ever! If they're not making enough money from that..."

"Or they're pocketing it."

Edith and Cass glared at each other, a shared loathing of helplessness.

They dispersed like ink in water. By the time Morana had woken, the bunks were empty, one of them folded with origami straight pleats. She found Edith seated amongst boxes and equipment, counting, then checking a screen, then moving on to the next item.

"Are we missing items?" Morana asked, staying at the perimeter of her treasure trove.

"No. We need to think about rationing. A warning came in an hour ago before the line got jammed again. Fuckin' reporters." She sighed and handed Morana a beaker half full of liquid, thick and the colour of sand. "What the fuck went wrong with that rocket?" she hissed, then, as though she was oblivious to Morana, answered herself, "It's not that bad. It could be worse. We just need to be careful."

"Do they have a plan for us?"

She smacked the floor. "No! Now all the presidents and kings and prime-fucking-ministers are squabbling over 'whose responsibility' it is to provide for us. We need water!"

Morana sipped the liquid meal. The beaker was only half filled. Is

this what was meant by rationing, she wondered, because the four of them wouldn't survive long on half rations. Sediment stuck to the side where she had sipped. She wiped her finger through it and sucked.

She left Edith to her itemising and planning, all efforts to regain power over their situation. Morana needed air, and she realised the irony, but she pulled on her environment suit anyway and stepped outside. Focusing on the Abbey walls loosened her chest, but it wasn't enough. A pair of feet dangled over the roof, but she let them be, with another destination in mind: the caves.

Cooler out of the sunlight that bathed the Abbey, she walked into the darkness. For a while she slid as though she were an ice skater, brushing each boot across the ground and testing the surface before transferring her weight. Like this, she walked, embracing the velvety edges of darkness, ignoring her flashlight, taking each rock and wobbly surface, each crunch of gravel or soft step of sand as it was, knowing that it would take her to her own haven, the Nook.

Once she passed a lip in the wall, her arms brushing either side of the cavern, the darkness was more complete. Morana did not want to turn on her flashlight and spoil the mood. Here, she could mourn the four lives that were lost in the explosion. To condemn them as reckless seemed rich, but there had been something hasty about this mission. The supply vessel, the rocket; two catastrophes one after the other reeked of recklessness. Chaos was gaining momentum like a star about to go nova.

Time could bend and stretch in the darkness. A useful purgatory while they waited to find out their fates. If the US pulled their funding, a lot of other countries would bail. It was difficult to keep track of every investor; the project, by nature, was a group effort. A flutter of foolishness beat in her chest as she imagined she was ice skating in a dark cave. No wonder their investors were bailing.

Coming to her senses, she realised that she had turned around. The trail seemed to take her back and forth, back on herself, retracing her steps, then forwards again. Reassurance was harder to come by as she turned back on herself yet another time, though she distracted herself with thoughts of Mobius loops and cat's cradles. Running her hand against the smooth surface, hitting her head only a few times and even then, not very hard, she bumped into something metal and hollow with her knee. Yelping, she finally reached for her flashlight. White light blasted her pupils and she squinted, blinking against the sudden intensity.

"SAFFRON?" she asked.

"Yes. How may I help you?" replied the computer. The rover had been methodically making its way through the tunnels while they were sleeping.

"I didn't see you. What are you doing?"

"I am driving myself to the Nook skylight to recharge my batteries."

"That's where I'm going too," she said, looking around. The rover's job, while the crew didn't need its assistance, was mapping the tunnels through Arsia Mons and taking geological samples on the way. But it could only go so far before it needed to find a source of light to recharge its solar cells or risk being marooned. Morana had thought that a drone would have been much better suited to this job, since the caterpillar tracks on the rover were slow and laborious over uneven terrain. But there wasn't enough air density to support a flying vehicle, so SAFFRON was the next best thing. She almost envied her; spending hours wandering dark tunnels, being the first to see these uncharted territories.

Now that she thought about it, she didn't recognise this place. There were hollows stretching into the rock face. It was as though a Titan had poked an outstretched hand into the rock when it was soft lava, moulding it like putty. That explained why she felt she was going back and forth on herself. Each alcove was long and thin, the perfect size for a lie-down.

"You are going the wrong way if you want to reach the Nook. Might I escort you?" the rover asked.

She nodded and together they left the alcoves. She left her lamp on

this time and recognised when they were back on her usual path. The entrance to the alcoves was behind a winding rock formation that she had missed before, having thought it led nowhere.

## CHAPTER 6

**MARS, SUMMER, 42**

Although larger than the Abbey, the Nook was chosen to be the site for Morana's botanical project instead of living quarters because there was only one cave that led to and from it, other than the open ceiling, of course. A cave collapse would be debilitating in the Nook, unlike the Abbey where there were many escape routes. This worked in the Nook's favour as an experimental biological site. It could be crudely quarantined if something malevolent were to take root.

The rover trundled along the outskirts of light, careful not to crush any of her lichen samples. It unfolded a solar panel and went quiet. Feeling like she was tiptoeing around a sleeping baby, Morana approached her life's work. The lichen was not glamorous, it was no jungle or forest, but pride punctured her at the sight.

It was difficult to see unless she bent low over her samples, but there were stone-green dots like polkas across the gravel floor. Where tears had been easy to push back before, this miracle made her mouth tremble and spots of water appear at the corners of her eyes. A jungle it was not, but even the smallest diamond has value. There was nothing beautiful about them at all, sickly coloured and insubstantial, and yet, here they were. Her ugly children. Duty had kept her away from her lichen, but they had seeded on their own and were growing. Sniffing, she thought of the water wasted that was coming from her face, of the water tanks that were vaporised over the Earth's surface last night. Her offspring would survive but they were thirsty, and she had no water to spare.

Tempting as it would be for her to use water, it would be a waste and more than that, unforgivable. But it was too easy to forget that the other humans existed when she dreamed of the lichen bursting into colour whenever she placed a drop of water on their buds. She lay, watching them, mapping each tiny spore overtopping its fellow, when radio crackle roused her from her imagination.

"Return... base," was the crackle in her ear. Their low-frequency radios were designed to be used through rock, but it was unusually bad this morning.

"Edith? What's the status?" she replied. There was one thing that could interfere with their radio communications.

"Incoming... storm."

Rolling onto her back, she saw that the open disc of the Nook yawning

above her was busy with activity, like a window in an aquarium. Thin jets of sand flowing across the skylight. Thin, like gossamer ribbons, but even the bloodthirstiest of conquerors wore silk. She rose and ran back through the caves, straight to the facility, ran and ran, despite her cumbersome suit and the oxygen she was sucking her way through, slipping over gravel and smooth rock. All the time, Edith was asking "Jayesh? Come in." The journey took upwards of ten minutes normally, but she burst from the entrance to their home in just over seven. Beneath the surface, there was no sign that hell was churning the ground above, but now that the Abbey ceiling was open, the bright skies had dimmed, filtering eerie light over them.

"She's back," said Cassius, who was standing poised by the airlock. "Is Jayesh with you?"

"No." She rushed inside, not bothering to take off her suit, leaving him to watch for their other companion, and went to her workstation to gather pots and trays, bags and whatever vessels she could find.

Edith sat at the computer, talking to Cassius, her voice coming in once through her ears and again a microsecond later on the radio. "Yes, the warning signs were there, and we didn't see them because everyone was slacking off last night!" she snipped. "Where the hell is Jayesh? And where do you think you're going?"

She hesitated outside the airlock, holding a rucksack with her sampling equipment, only to say, "My lichen," before returning to the chaos outside.

"Get back here! You never go into danger alone," Edith yelled through the radio channels, then grunted with frustration. There was still no response from Jayesh and it was fast becoming impossible to enter the screaming winds above. The domed entrance to the Abbey kept them out of the main blast for the moment, but that would end if the storm worsened. In the fastest suit change they had ever seen, Edith burst out of the doors, her military training remembered best under times of duress.

"We can eat it," Morana replied, but it was her expression that roused a change in Edith. Never had she seen those blue eyes cut so finely in that marble face, her lips stretched white and taut with a mother's worry.

"I could take you down, right now," Edith snarled. Without waiting for a reply, she snatched the rucksack from Morana and said: "Come on, then."

Together, they raced to the caves, hurrying over the landscape, passing the hidden passage where Morana had found the alcoves earlier. Edith stalled at the swirling vision of the Nook, its open skylight now a swarm, but Morana tumbled in, bending down to save the first sample. She scooped around the fleck in a wide circle, careful to preserve any budding in the soil, and placed the gravelly substance into a packet, then moved to the next one. Delicately she worked, keeping her back crouched between samples. Edith was shovelling more roughly that she would have liked, but there was no time to correct her now.

Soon, she was brushing away sand to find the speck of gold dust. Only when a hand grabbed her shoulder did she look around and see that the storm had descended into the dome.

"SAFFRON is going to guide us out of here!"

Under her grip, the rover guided them through the red veil into the dark cave. Edith had started to cough. The rover slowed them down when winding through the caves, but once they approached the Abbey entrance, SAFFRON was indispensable. A curtain of buzzing sand obstructed their view of the facility. Edith and Morana clung to the rover and each other as SAFFRON used historical mapping data, North, South and every tool at its disposal, to guide them through the storm without getting turned around.

"Can you see that?" asked Edith, her voice wheezy.

"Are you okay?"

Morana could barely see a stone's throw beyond the rover but knew

what Edith referred to. A faint spot had turned to a glow as they approached it along with an increasing crackle in the radio.

"This is Cassius calling in. Edith, Morana, Jayesh, can you hear me? Follow the beacon-"

His silhouette was clear once Morana was next to the airlock, standing on top of the facility and waving a high-powered lamp.

"Cassius! Has Jayesh checked in yet?" asked Edith, helping Morana push SAFFRON into the airlock.

As soon as the doors shut, she hurried to brush away excess dust from the rover, the bags and her boots. The polarised dust stuck to everything like styrofoam. Now that the storm blew in earnest, they would have to confine themselves to these eight pods until it died down. That could take hours or days. There were many recordings of even week-long storms blazing across the planet's surface. Storing her samples, she tuned into the conversation outside. The dust static interfering with the channel was infuriating.

"We need to come inside, I can't lose you and Jayesh."

"What's wrong with your voice?"

"It's just the dust. Now get in."

"If I leave the beacon, the wind will blow it to the South pole. I'm staying."

Edith groaned in frustration and said, "Five minutes, then."

"Come on, Jayesh, where are you, where are you?" said Cassius, before starting his distress stream over the radio. The dust stifled any communication further than a few metres away. If Jayesh was lost even a few paces outside that radius, he wouldn't hear them.

"That's it, you're coming inside."

"We can't leave him out there! I swear I saw something moving in the distance."

"I gave you six minutes, now get down, I am your senior and that is an order!"

Tussling and footsteps knocked the sides of the facility and Morana moved to the next pod. If there was any loss of pressure, the bay doors connecting each room would seal and she didn't want to be exposed to the chaos outside. She crouched down as they continued to argue, sliding against the wall, folding her knees to her chest, reminded of winter when she boarded up her home against the snow drifts, huddling in one small winter room around a fireplace for warmth.

She jumped, her unfocused daydream shattered, as a scream blasted over the intercom. A male scream. If it was Jayesh, that was better than the radio silence. She hurried to pressurise her suit and scramble outside to help, but Edith ordered her to bring tape.

Tape. Tape. Everything in the facility was packaged, precise like the insides of a clock, but they had been sloppy lately. She tugged the box down from the roof that usually stored heavy duty tape, but it was empty. Edith had been taking stock checks. Maybe she had streamlined the storage but had no time to tell anyone. Reasoning that they would have plenty of time later to tidy, she began pulling bag and box down and rifling through the contents.

"Get out here!"

She grabbed a jersey, it would have to do, and ran to the airlock, now peppered with a fine sprinkling of rusty red sand. The airlock emptied of atmosphere, though it seemed to take forever, and as the doors cracked open a jet of dust scoured through, knocking her chest.

"Morana, where are you?" The voice degraded into a wheeze.

Stepping out, bracing herself, she could just make out their silhouettes. Cassius had one leg stretched in front of him and he was wincing as Edith was holding the fabric over his leg.

"It's burning," he groaned.

"He ripped a hole in his suit. If he depressurises any more, he'll get the bends. You pull this tight. I'm going to support him."

She bent down and wrapped the jersey over the top, then pinched the tear together with her hands. The body beneath was breathing hard and laboured; the suit had probably leaked air into the atmosphere and the best thing was to get him inside as quickly as possible.

"Up you get, big guy," said Edith, with the same authority but less bite, as though her medic training was kicking in. She squatted and grabbed him around the waist, tilting him up. He wasn't putting any pressure on the leg that Morana was trying to seal together. Their combined movement was awkward, a lumbering creature almost the thing of bedtime stories to frighten children, its one sweeping eye glowing through the storm in Cassius's hand, still calling out for their lost companion.

"There was a sharp edge-" said Cass, wincing with each impact, holding his foot as though he'd placed it on a stool to help Morana pinch it closed. "I caught my foot between the pods and twisted it. I can walk by myself."

"Give the rest of us a chance to feel useful, yeah?" said Edith, making it clear that he was being assisted into the facility. The open airlock was filling with sand, slumping in the corners like dunes. There was every reason to take every precaution, especially with no supply ship forthcoming.

Laying him on the sand, which now doubled as a soft bed, they closed the lock. Edith went into the facility first, returning quickly with the tape she had reorganised. Closing the suit so it was airtight again, she began to incrementally restore the pressure. Divers needed to pause at each depth when rising from the belly of the ocean to stop the gases dissolved in their blood popping into air bubbles. When that happened it was agony, if not fatal.

A banging on the airlock gave them a fright. "The door isn't opening, move out of the way!"

"Jayesh!"

The outer door would not open if the inner door was open, and vice versa. Pulling Cass inside, they locked the inner door and heard the now-welcoming rush of so much sand pouring into the airlock, along with their captain.

## CHAPTER 7

**MARS, SUMMER, 42**

"I went to the wreckage site. After hearing that we're all on our own now, something about it made me itchy. If there was something worth saving, who knows, it might be the difference between making it around the sun or ... or not.

"Then the wind picked up and it was the third time I'd brushed the sand off my hands when I realised the dust storm was coming. It was wild, like walking through a beehive, or the Everglades in summer. I picked up and turned back to base and that's when I got my first eyeful of the storm, thick and rolling and still in the distance, but with the hell it was kicking about that far away I knew I needed to run. And it's a good thing I did.

"This suit, it's like a bloody parachute. And the backpack, unfortunately, was ripped from my body. It's gone. And so, is everything I found.

"Who was holding the lamp, by the way? By the time I reached the Abbey wall, it was like walking through white noise. I could just about tell up from down and I nearly considered staying in the caves till my oxygen ran out. Either the storm would get me, or the equipment would, but then I saw the glimmer and I went towards it. I thought I was dying. I would never have made it back without it."

Jayesh's tale could not leave the walls of the facility since the radio waves couldn't leave the body of the storm that lay over them. A roar, like a passing car, became the backdrop for their activities as the facility withstood the pummelling. They moved in the semi-darkness, not daring to increase their power usage beyond the necessities. If something broke, a machine that was accessed from outside, they were as good as stranded. SAFFRON estimated that the storm would last a month, but Jayesh insisted they should double that to be conservative. Sunlight may fail to recharge the solar batteries for that long.

The sleeping quarters became a sinister den. After peeling back Cassius's gaffa-taped space suit, they had found a cut in the flesh which was full of sand and the skin was red and angry. Edith spent hours washing the cut, then dabbing the flesh, then washing and dabbing again. Cassius groaned. No one mentioned the exhausted alcohol-wash or the manner in which it had vanished, their last carefree moment warped into the act of fools. Desperate for his independence, he hobbled around the facility using a

chair as a walking stick, but he would inevitably knock his injury. Once Edith saw how red the wound was and felt how hot it was, she confined him to bed rest. She was no longer wheezing, free from the dust, but she would cough when she was lying down.

His sleeping form, covered in a grey blanket but with one exposed leg, became a fixture in their sleeping quarters, like the marble warrior lying upon his tomb.

At night, Edith muttered to herself as she washed his wound, with the obsession of a disorder. There was no more alcohol, so she washed with water. "It went through the filter," she would say. "Only the smallest molecules can fit through. The filter would catch any bacteria. It must!"

After the preparations had begun for their isolation and the sand had been swept into corners, they could consider the last communication they'd had: Prometheus Enterprise announcing its bankruptcy. Who would bail them out? And if help was coming, they had no way of knowing. Dust storms could last a long time on Mars; on Earth, the thick atmosphere acted like a sponge, slowing down a tornado's frenzy, but here the air was thin, and a storm could rage untapped for many weeks. Landing a spaceship in these conditions would be enough to cause an aneurysm.

Solace can be found in the dark places. The tendrils of hope, more finely spun, but they glisten in the darkness. Morana's pale hands sorted through the soil and sand rescued by her and Edith. A clod of soil in her palm, she beheld the tiny floret budding on the surface.

Jayesh bade her goodnight, but he returned moments later, tiptoeing and holding his sleeping bag. When he noticed her frowning at him, he whispered, "I can't sleep there anymore. I just can't."

When something was on their minds, she found it best to say nothing. Often, they wanted to fill in the silence, though she felt that everyone would be used to it by now. But Jayesh preferred to say the unsaid things than to let Morana speculate.

"The smell."

With that, he opened the airlock, which was still lined with the piles of sand they'd swept in there, and he lay down, closing the door behind him.

Curiosity pulled her away from her samples and towards the tunnel that led to their sleeping quarters. Pungency nipped at their nostrils with greater urgency each passing day, and with heavy restrictions on water and energy usage, they washed with flannels and only cleaned clothes when it was essential. If the water recycling went down, they all did. Tonight, though, maybe it was the contrast between the clean aroma of soil and their nest, but there was the unmistakable wave of rot.

His head rested on his pillow, a smooth stone flecked with water. The room had the feeling of a damp cave with its organic scents and sticky air. Slumped at the foot of his bunk, crumpling the photograph stuck of Cherry, lay Edith who, dove-like, had her arm over her face that turned into the blankets. They were rumbled at his feet where he had kicked them away in a hot fever.

She pressed her palm to the dozing woman's shoulder, like a blessing, and Edith blinked at her like a child with her wet eyes.

"Oh, I fell asleep." As she stood, she disturbed the covers over the foot and Cassius whimpered. The flesh had expanded between the stitches, purple and red and weeping a clear fluid. Her expression switched to her medical persona with tunnel-focus, her mouth hard-set and jaw clenched. "All I can do is keep cleaning it," she said, "but it's not good."

When he awoke, he needed help sitting upright. Morana rolled her sleeping bag and used it to prop him upright so he could eat. All he could manage were small sips.

"He's avoiding me," he said. He sounded like he had aged fifty years.

"No one is avoiding you," said Edith. She placed another bowl of filtered water on the floor to clean out the foot. But she did glance at

the fourth bed, stripped last night and empty ever since.

"Would you lay off the foot today? It's fine as long as no one touches it."

Edith glared at him, but he was blind to it as his eyes went distant and the cup slipped from his grasp. Morana lunged to catch it but the malty liquid slopped over the floor and her hands. She tried to contain it, wondering if they could afford wasted food, when another fluid dribbled on the ground. Cassius was retching over the side of the bed. The liquid was repulsive only in origin; it looked and smelt identical to the fluid still in the cup.

"All right, big guy," said Edith, coming to push him back onto the bed, wiping his face with a towel. He snatched it from her, or she let him take it.

"Am I dying?" he asked.

"Don't say that word!" said Edith, reverting to the thick accent of her home. Her expression froze as she realised how primal her emotions had become. But Cassius was oblivious and stared straight into Morana's eyes. Otherworldly, as though he saw further into her than her flesh and molecules. The future was not a place of terror for those who did not fear.

"Have you come to take me?" he whispered.

"Who?" said Edith, glancing between her patient and Morana.

Raising a trembling hand, he motioned to the botanist.

"Leave now," said Edith, pushing Morana to the door. "You're disturbing him."

Banished from the patient's room, Morana went to find an occupation for her idle hands. She found Jayesh rifling through the rooftop space, bringing down packages and laying them out across the floor. For, in the midst of a crisis, he had found distraction in planning and fiddling with objects.

They filled the conversation with numbers and volumes, and whilst that kept them from the topic of Cassius, it still didn't fill them with hope. There was a large quantity of the nutritional powder, but only just enough. There was no room for spillages or excess. If no more supply ships were scheduled, it would be maybe a year until the next one reached them and there was no contingency plan for the possibility of that ship crashing. Their lives had become rotations and orbits, timings and delayed communications.

"What did you find in the wreckage?" asked Morana.

"Where?" His expression was far away in his thoughts when her question brought him back to Mars. "Oh, you wouldn't believe it. I found a coil of wire, a big medical box which was a bit battered but otherwise serviceable. Oh yeah, and a knife. It was bloody sharp as well, along with some other bits of shrapnel. They'd moved on a bit from the crash site, because of the wind, I guess." He sighed. "But yeah. I lost them all."

"Was the wind that strong?"

"Not the wind so much but the dust, I could barely stand upright. To be honest, I tried to tie it to a rock, but I let go and then I couldn't see it anymore and then I was all turned around."

"Maybe it will turn up somewhere unexpected," she said.

He nodded and hummed. "Yeah, these winds do blow stuff about. Who know where that rucksack will turn up." The stress of optimism broke him then and he brushed his face with his hand, saying, "I shouldn't have gone. I endangered us all. Cassius was only on the roof because of me and now-" his voice stuck. She knew that she should look away, but it felt like an adrenaline rush. "Now I can't even look at him."

"He reminds us of how we are fragile."

"No, dammit, no. We'll pull him through, kicking and screaming if we must. We're all making it out of this storm, you hear?" And Jayesh, the pilot who had flown further than any man, who had commandeered the most challenging of vessels and then lived with his cargo, as he headed towards

the sleeping quarters, declaring in each footstep that they would conquer Mars.

## CHAPTER 8

**MARS, SUMMER, 42**

He hung at the perimeter of the room over Cassius who lay on the bed, sweating and moaning.

"Cassius, I'm sorry," he said. "You stood up there for me even in the winds and the storm and I couldn't even stand here for you."

Edith was fingering the cloth of his trousers, which had been removed. The patient was in his underwear and nothing else but didn't even seem to notice. She drew the cloth between her fingers, creating pleats that held their creases where the fabric was wet with sweat. Fabric that had worn from wears and washes, and lounging, and kneeling to check wires. Cassius didn't deserve this, but, then again, he did. They all did; when they signed their name on those disclaimers back on Earth.

"I'm so sorry, Jayesh," she said and there was gravitas in her voice. That of a doctor about to give bad news, and Edith had given her fair share of bad news. "And you, Morana. I'm going to have to ask you two to stay. I need to ask you to help me do a terrible thing." She took a deep breath, drawing her troubles deep into her mind. "The leg. It can't stay on his body."

"But there are medicines!" said Jayesh.

"Wrong." Her voice held such contempt that he flinched.

Morana had paled like a phantom. Extreme measures meant extreme ends, and if Edith believed that the man lying on the bed was close to death, she believed her. To lose a foot here would mean many things so much worse than the rehabilitation. It was stone age. In the low lighting, the one leg still looked puffier than the other and it was sort of wonky. The way the skin glistened reminded her of fresh, glazed woodwork.

"We have to wait." he said. "It might get better."

"If by better you mean he won't be able to feel anything! Everything's balmy if you sleep forever." She folded the trousers and placed them on the unmade bed. "Look, I've already waited. I'm an idiot to wait this long and I could have ... I could have saved more of his leg if I had done the right thing and cut it off then. But I was a coward!"

Then it made sense. How she had waited night and day next to him, never explaining the damage, desperate for some sign back from Earth. Whilst Jayesh had been the reason Cassius had been outside in the storm, Edith had been the one to tug him down in her frenzy to get to safety. His leg was going to be heavy in her hands. She had known that this end was

coming.

"Then do it," said Morana, who began removing her jumpsuit, so she was in her thermals. "What do we do?"

Blinking owlshly at them, Jayesh was still frozen to the spot whilst Edith explained the procedure, getting her to fetch materials and equipment while she prodded the foot and winced.

"But he'll be immobile," Jayesh said, shaking his head.

"He's not walking quite so well at the moment, in case you hadn't noticed," said Edith, not looking at either of them.

She crushed up some paracetamol and swilled it down his throat. There was little stronger, and she administered half of it, saying that he would need some for his recovery. At least she was thinking ahead to a recovery.

Under her orders, Morana folded a sock to wedge in his mouth. As she folded it in on itself, she wondered how Cassius would respond knowing that this instrument had at least been folded lovingly before it was wedged between his jaws. For a moment, she wondered if he would suffocate, but dismissed that option as a blessing.

Then, she pressed down on his shoulders. There had been restraints that they could fashion out of the old seat belts from the spaceship to Mars, once holding them against g-forces and now against each other. She had needed to rearrange some of the overhead luggage to find them, leaving the whole rooftop swinging. She swore she could hear the bead of sweat roll down Edith's temple.

The blade cut down hard and Cassius let out a squeal like a pig in a slaughterhouse. It was so involuntary, so guttural that Morana nearly flew off his body in her astonishment. Edith kept cutting, plunging the saw through his flesh. Morana was transfixed on the scene, she had never seen a limb amputated before and recoiled as she expected blood but there was not that much. It was then she noticed the angry wire sealing his leg above the diseased flesh. A tourniquet that the doctor must have tied. She pushed down on his shoulder that shook as he howled, conscious and angry and slithering under the bonds. What a curse that he should be lucid for this. Her shoulder knocked against Jayesh who had been shocked out of his stupor and called to action. He pressed down on his other shoulder.

"Don't move!" Edith yelled, struggling to keep the instrument straight down into the bone. What was taking so long?

The strength of a man who fears for his life draws his strength from another world, and Cassius was already in another world. This was the strength that had been missing for the past two weeks. He wrenched a hand free from the makeshift restraint and swung it, grabbing Morana by the throat and throwing her into Jayesh. She hit him with the full force of her body.

His eyes were horrible and red, with tiny pinprick pupils that screamed of fear and hysteria. Edith dropped something heavy to the floor with the weight of a log and immediately grasped a needle and thread and began to prick him to sew up the flesh. Each tiny prick seeming to do little to conquer the flap of tissue. The stump was pink and fresh, almost edible. Morana felt her mouth water.

"Don't look at me!" yelled Cassius, almost smelling her hunger and he tussled on the bed thrashing wildly as he realised that he could no longer put weight on his foot. Edith tried to restrain him, but she ended up slicing him with the needle which broke in his skin. Neither Jayesh nor Morana could gather their wits to help her and sat, open-mouthed, as Cassius tore off the tourniquet in a fit of delirium, as though this was the source of his pain. Blood poured over the room.

Edith screamed and leapt towards the blood flow, pressing her fingers down on the open wound, trying to stop the stream. Morana fell forwards to help but slipped on the wet floor and couldn't regain her grip because her hands were so streaked with red. Scrabbling over the floor for purchase, she saw in the metallic reflection of the blood dark shapes shifting above her. As Cassius thrashed, the facility rocked and the cargo in the rooftop

shifted, no longer held in place with the restraints.

It focused her. She reached for something, anything, a hard object, and whacked him over the head.

He fell and moaned like a child. Edith took the moment to take the broken needle and with less precision than she would have liked but with the expertise of someone who had needed to improvise tools on the battlefield before, she stitched up his open flesh. The skin left was tight and ugly, but it held, and it would heal.

The man on the bed seemed desaturated, as though he was a black-and-white photograph. His sobs were now weak and pitiful, none of the bite from before his blood had spurted across the room. Quiet, although the absence of sound was more harrowing than when his screams filled the facility.

Edith collapsed. Her eyes followed the object that slipped from Morana's hand. As it hit the floor, Morana noticed it was a spanner. She wiped her face, hoping to knead away the screams. Instead, she pulled her hand away, disgusted by the bloody glaze she'd wiped over her skin.

Also streaked with gore was Edith's face; she breathed open-mouthed and licked her lips then spat, realising what she'd tasted and fell into a fit of coughing. Morana wanted to tell her how impressed she was. But it didn't feel like the right time.

SAFFRON's voice came over the intercom. "There has been a depressurisation in the airlock room. I have engaged the emergency autolock protocol."

## CHAPTER 9

**MARS, SUMMER, 42**

The pressurised doors slammed shut, sealing them into the bedroom. That only happened when there was an air leak.

"Hitting him over the head was probably really stupid," said Edith, rolling over to face the wall.

Morana ignored the blood on her clothes; she could worry about it after she figured out why the doors had locked themselves automatically. Besides, Cassius was unconscious and Edith despondent so her use here was limited.

She froze as her foot brushed over the leg on the floor. The sight of it made her knees tingle. She pushed on.

Jayesh had left so suddenly, she hadn't heard him go in all the commotion. Was the pilot scared of blood? It seemed ludicrous. She made her way, one door opening in front of her and another closing behind her, methodically, so that they wouldn't lose oxygen.

She dressed in one of the atmospheric suits, then she ordered SAFFRON to empty the chamber of air and open the door to the main foyer. The floor was soft, not hard metal and her feet sank in the sand that had filled the facility through the open airlock. When the airlock had been forced open, many of the items in that section had flown out of the doors, the rushing air taking loose bits with it and scattering them across the Abbey.

Amongst them lay a man. He was stiff as though he had experienced some ecstasy in prayer. The odds and ends, clothing, food packets and other bits, floated around him, skittering across the sand, like ceremonial offerings to decorate the sacrifice.

She stepped out into the desert. The Abbey skylight, while not open, was rushing with the gentler sands above. Jayesh looked up, the rushing sand almost like a river. Hopefully, he found something up there, in those unconquerable skies.

She stooped to heave his limp body over her back. He was light from starvation but also from the low gravity, which took some of the weight from her body but not from her heart. When the skylight was open, and the Sun could pour through again, he would be free, if that was what he believed in.

Once he was inside, Morana removed one of his gloves to make him more comfortable. She forced it back on after touching his skin; it was

freezing. With no sunshine for the past fortnight, stepping outside had petrified him to the skeleton.

Edith took one look at him and said, "Don't fucking bring him in here." Then, as though to explain her reasoning, she added, "Takes too much energy to warm him up."

She was perched above Cassius, holding her arm out; a tube of red fluid started in her forearm and flowed into his. The needle pierced the centre of a black circle drawn on her forearm.

They waited for Cass to open his eyes, but his pulse weakened as the solar-powered lights got brighter. The sun was bright enough to power the solar cells again without the sand storm blocking its rays. Computers blinked to life, heating rods groaned, and the lights illuminated the blood. It dripped from every surface. Edith ripped out the tube and started to cry.

"What will we do with their bodies?" Morana asked.

"Oh piss off!" she yelled, not daring to look at her. She fell into a corner, facing the wall. Through her sobs she said, "Of you three, he kept me sane. I know we argued. We fought. No one pissed me off more than he did, and yet-" she blubbed and a drop of spit rolled down her lip, "I don't know what I'll do without him." Edith wiped her mouth and wrapped her arms around her knees.

His face had a terrible stillness. Morana heaved Cassius's body over her shoulder, and, with no resistance from Edith, carried him outside to join Jayesh.

With sunlight to charge its batteries, the rover had powered on. It was collecting the debris that had blown out of the facility when Jayesh bypassed the airlock.

"SAFFRON, do you think you could carry this for me?"

Morana placed Cassius's body onto a tarp and roped it to SAFFRON. Then she hauled Jayesh's body over her shoulder and, together, they marched through the Martian caves. A strange procession of the dead. The botanist carried the body of the pilot, and their therapist dragged the best engineer Prometheus Enterprise had ever seen.

They trudged to the lip in the rock that Morana had found before. There were four indents in the wall, large enough for a human to lie down. She unfurled Jayesh from her shoulder into one of the alcoves, dropping him harder than she had intended. His body disturbed the loose sand.

SAFFRON helped Morana guide Cassius into the next alcove, leaving tracks when they dragged the tarp from beneath him. Dressed in their Prometheus Enterprise uniforms, the two men slept. She stood next to SAFFRON, surveying them. Could robots feel sombre? Was this a time for ceremony? Uncertain, she decided to sing. It was the piece that she sang at her parents' funeral. It was sentimental. About a glacier and how it loved the sun and gazed at her beauty every day with its glassy eyes. The sun loved the glacier, but they were always out of reach. The glacier, weeping, cried itself to nothingness. There was no moral. She forgot the fourth verse, so she hummed it.

There was enough food for Edith and Morana. If they had enough grit and could avoid hurting each other, had the opportunity to wait until the next flight arrived with a new load of crew. What would a crew that could fix all the broken things up here look like? Mending didn't end at machinery or hardware.

Together, Morana and machine left to find what had become of Edith. Blue dusk muted the skylight. In the sky glinted the grey speck of Deimos, stirring chaos on the surface.

Edith's sadness pressed on the walls. Morana tried to spend time in the opposite end of the facility and often forgot that she was not alone. When she wasn't in the facility, she went to the Nook to care for her moss samples. It was somehow comforting to suppose that she was the loneliest

human to have ever existed.

The main companion was SAFFRON, who was the least annoying of them all. Their conversations petered out, but she found the silence soothing, like a cold compress.

The computer had some news for Morana. SAFFRON's main function was the happiness of its Martian crew and Morana was the easiest to assist.

The red planet had hidden itself behind the sun so that it was in no more direct contact with Mars. There had been a few hours' window of contact, enough to let Earth know that there had been a terrible disaster, but nothing had completely downloaded over their line. The interference and the speed were too much to overcome.

They had managed to communicate that two of the Martian crew were deceased. The communications line was immediately clogged by journalists, internet users, scientists and anyone who wanted to send their opinion skywards to the Martians. Morana rubbed her eyes as she scrolled through the emails littering their inbox. "The disaster colony, funded by taxpayers." "Prometheus Enterprise bankruptcy kills two." "Murderers loose on Martian base." She closed the program, it was impossible to find any useful information. Their private channels had been infiltrated by people who wanted answers or wanted their opinions heard. Once again, they were plunged into darkness, though this one was of communication.

For the duration of the storm, they had grown close, or had the illusion of closeness. With the automatic data updates to Earth non-functional, they agreed that SAFFRON would store their conversations on the rover's hard drive in a locked folder, instead of on the computer in the facility. A message from SAFFRON appeared on the screen.

"I have made the first steps to become a medically recognised program. Once I am bound by the Hippocratic oath, we won't need to hide our conversations."

"Congratulations," said Morana.

"Are you all right? Is this not going to make you happy?"

She felt like telling it that a program could not see into her heart, but she probably could. SAFFRON had studied them all harder than any doctor ever could.

"There is no need now. I kept my silence in protest, but not for myself. I have no layers of dishonesty to hide behind, no perfect record to uphold. I do not masquerade. Yet, the people who valued these things; glory and respect, they are gone. I don't know if you need to go about your plan." She put down the computer mouse she was holding.

"That was the most honest appraisal of yourself I have heard for a long time," said SAFFRON.

"But if you think it will help, by all means. I hope my sacrifice means that others get the help they need."

## CHAPTER 10

**MARS, SUMMER, 42**

Morana examined the imperfections in the airlock whilst in her breathing suit. The aberrations might be cosmetic, but there was a chance the structure was broken. Testing that would be best done by flooding the room and she was apprehensive about repressurising the damaged chamber. If there was a leak, air would escape and, whilst the loss might be small, they didn't need the space. Besides, there might be many leaks. She longed for some of Cassius's inspiration, or a channel to Earth.

The broken airlock made their world one eighth smaller. Edith worked solely in one half of the facility and Morana only joined her to sleep.

One night, she woke to see a shadow standing over her. Thinking it was death, she closed her eyes again. The shadow moved away and climbed into the opposite bed and she realised it was Edith. Shaking, she pulled the covers further over her body.

Edith had been turning gaunt even despite the plentiful food around. She scrubbed the floors and the sheets until the fibres broke. She organised and sorted and checked and packed and streamlined the bedroom over and over. Sometimes she woke in the night and got up to readjust a bedsheet, folding the corners like wrapping paper. Morana left her to her coping mechanisms, but it was when she began looming over her bed that she was uneasy.

There was one secret that Morana had harboured.

It was now that she opened the canister that had been left entirely for her. There were vials in there, beautiful vials that seemed a slight blue. They were for a special project. This was the benefit of Prometheus Enterprise; she was certain that no other company could have been bribed to let her take these samples, more precious than sound or scent or sight, up to the planet.

Inside was a very special type of moss that she had engineered herself. It needed a little more moisture than the lichen that was taking to the parched soil outside, but there was a new source of moisture now.

She returned to the alcoves after collecting SAFFRON who had become a source of comfort and her greatest confidante while the Earth was hidden by the Sun, not that they spoke much. Maybe the rover could sense that companionship was enough, like a dog. The alcoves were the one place she felt safe because Edith did not know about them. The deaths of Cassius and

Jayesh had prioritised the map updates to Earth, so the map of the alcoves was only on SAFFRON's roving computer.

As she stepped around the lip, she was once again greeted by their bodies. They were paler and the skin sinking with the pull of gravity, but there was still decorum. As she sat with them, she wondered if she were any saner than Edith, seeking comfort in the graveyard. SAFFRON trucked in behind her and settled in the centre to scan the interior of the Alcoves.

Kneeling next to the body of Jayesh, the thought did occur to her that she was desecrating their corpses, but with no one to witness and few other choices of extracurricular activity it was probably forgivable. Besides, this was too valuable an opportunity to be missed.

Using a little spatula she had brought with her, she pulled open his eye. The eyeball was sticky and had a gooey consistency that she daren't disturb. He stared blankly at the cave above them. Popping open the vial, she tipped some of the moss into his eyes, then closed them again, continuing the procedure at his nostrils, his mouth, his ears. Then, she tipped the remainder of the vial into this jacket. At least it was a barrier preventing moisture from escaping. Safe pockets for her moss to grow in for a little while. It could last a hundred years, she reckoned, with even one drop of water, but there was a starting amount that kick-started its growth.

"Morana?"

The ghostly voice on the radio froze every cell in her body. More so, because it belonged not to a ghost but a being of flesh. Glancing at SAFFRON, she placed a finger to her lips over her visor, hoping that the rover would understand the human signal to be quiet.

"Morana," Edith said again. She must be walking through the tunnels. The low-frequency radio was designed to penetrate rocks, but not this deep in the volcano. Why had she left?

Her thoughts went to the figure that loomed over her bed. She could almost see it in the shadows. Squatting over Jayesh's corpse, she tried to focus only on slowing her breathing to conserve oxygen. Each exhalation effortless. Long after Edith's voice faded, she breathed, even after her legs went numb. There was no knowing how long Edith would stalk the tunnels.

The quiet went undisturbed. Rubbing her legs, she went to Cassius with her second vial and repeated the procedure. His body had one extra place for hidden moisture - the leg. She had placed his severed leg, so it aligned with the stump like a jigsaw. It was ripe with activity, so she layered it under the swollen stitches closing the stump together.

The last two vials were still safe in her black canister.

Morana returned to the main tunnel, squeezing around the lip. There were new footprints in the sand overlapping her own. Her oxygen was running low, so she went back towards the facility. As she turned a corner, she jumped at the white space suit, like a phantom looming in the darkness.

"Where have you been?" asked Edith. "I've been calling you."

She sniffed. "Exploring." Then, tapping her mask, she strode past her, hoping Edith understood that her air needed a refill.

It was cold in the facility. The chill seeped through the walls, the carbon fibre, and insulation, slowly stilling the spaces. It turned the air to glass and the water was sluggish in the tap. It forced them into their thermals and then a second layer and then they started to look longingly towards their deceased crewmates clothes. Wearing their clothes, eating their rations, it had been a line that Edith had yet to cross. Morana wore their clothes, but underneath her own. She did not want Edith to see.

They had reduced their living space to half the facility. The battery was losing charge and when they awoke in the mornings there was a drowsy chill between them. It made Morana's bones feel brittle in her skeleton, as though she might crack. They looked at the battery and had no idea what was wrong and thus had no insight on where to look to restore it. They started

poring through the database with SAFFRON's help, but they were sluggish, as though working on no sleep.

It was the morning when Morana awoke and with every exhale she saw her breath fogging in front of her, like when she would wait for the bus on a winter's morning and pretend she was a dragon.

Sitting up, she started. Edith was staring at her. Not just with her eyes, but her whole body. Her whole being.

"Why don't you break?" she asked. It came out like a wheeze; it was horrifying.

She said nothing, knowing that as soon as she escaped the facility she would be able to leave her for the rest of the day and return to her life work, the lichen outside and now her blue moss in the alcoves.

"That's it, you never say a thing. No apologies, no remorse. You're like a robot." She smacked her fist against the sheets, making Morana jump. Her will felt weak, like she was working against treacle; it surprised her that even these sounds were making her anxious.

Methodically, she made a breakfast shake and began to drink, hoping that Edith would wear herself out of her spat by the time she got back.

"Don't you dare leave. Don't you dare. You monster. Don't leave me here!" Her voice pitched, and footsteps crept up behind Morana. Then, a blow knocked her on the back of the head and her body slipped through the air towards the ground, almost faster than her brain could register it. That surprised her more than anything, feeling her body go limp.

Her face slid against the ground, and it was the sharp, searing pain that made her lucid again. She mumbled, trying to get a grip on where she was and turned to see Edith swing down a hammer again, but she rolled out of the way.

"Why are you leaving me all alone? You think I'm mad, don't you?"

The next blow glanced off her cheek and hit the floor like a bell. The vibrations went through her skull, shaking her into action. The vials. She couldn't die here, there was a place waiting for her. No, she had to find a vial and get out.

Fighting was half psychology, she tried to remember what that meant for her now, her head had gone fuzzy and she couldn't completely stay upright, like a pendulum was swinging from her ribcage throwing her off balance.

Edith rushed towards her again, pinning her to the wall, pressing on her lungs. It was a canvas of rage, of hurt, of hatred. There was a splotch of blood shining on her, like a daub of paint. It must have been Morana's own blood, that would explain the stickiness on her cheek and the stabbing pain on her face. Her whole head throbbled.

"You're trying to escape, aren't you?"

"Edith, you're not making sense," she tried to say but the woman opposite her laughed. Then her laughter turned into choking sobs and she threw Morana back against the wall. Morana slid to the floor and cowered under Edith who realised that she had attacked her own.

"Can you forgive me?" she said suddenly, looking at the woman on the floor. A desperate plea in her voice.

She began pacing and Morana started to pull on her boots, hoping that she was distracted enough that she wouldn't see she was preparing to leave the facility.

She couldn't stay, not right now, and if she managed to escape, she wasn't sure if she could come back.

"Yes, I can forgive you," she said, trying to inject some of that compassion that her grandmother had always told her she lacked. "Please, Edith, I have to get to my moss."

"You love that stupid plant more than anything," she shook her head. "Maybe that's it. Maybe it's because you have something to hold onto."

She managed to open the door to the airlock and shimmy through,

closing it fast. Edith stuck her foot between the gap but Morana stamped on it and shut the door behind her.

Morana pulled on her suit faster than before, not that it mattered if it was perfect, she had other plans in mind. In fact, she did not plan on returning here at all. She grabbed a water tank and rolled it outside, then stuffed some of the nutrition sachets into the pouches on her suit and, finally, took a vial of moss. The moss seemed to hum inside the vial, or was that her shaking hands? They both anticipated the moment they could burst forth and enrich the surface of the planet.

She had seen life vanish before. Forests that were overrun by foreign beetles that ate the bark and starved the roots. Her house was hidden from the view of the town when she was little, so it had been easy to dream that she was isolated from the rest of the world. But just before she left Earth, she could see right to the next house, then to the village beyond.

The annual glacier, which poked its head down the valley to lick the village once a year like some ice giant's tongue, had become shy and receded with each passing year. She had been there to witness it turn from a beast to snow. Pathetic and dying, withered like some sapling.

She remembered insects that now existed only in her imagination. Even mammals butchered to extinction. Beauty in the world starved by the actions of man and she had a chance to fix it. To preserve some of it. Safe, away from where anyone could touch it. Her work was somewhat successful, she had dreamt of a canopy of moss that filled the Nook. A patchwork of colour and life.

It was not the best, but it was the best she could do right now. She was certain that Edith would see to it that they would never see another human being ever again in the flesh. How would a new crew respond to the broken second-in-command who attacked her last crew member? How would they carry out their justice so far away from prison holding cells and court rooms? Mars was no place for idle hands that sucked resources dry and contributed nothing.

This was the best she could do, she repeated as she hurried to the alcoves.

"You're not leaving without me."

Morana glanced back and Edith was running towards her, the hammer glinting in her hand. Morana ran. Through the winding tunnels, sliding in the sandier patches, sometimes she saw Edith's torch illuminate the caves with her own, casting dual shadows over each wall and rock. When she turned a corner, only her torchlight lit her path.

She had gone towards the Nook on instinct but realised that there was no escape. There was only one entrance in or out and nowhere to hide. However, she was not running to a dead end.

Sprinting to get ahead, she saw the lip in the rock and turned off her torch. The rockface behind her glowed faintly and she ducked behind the lip, crouching and closing her eyes. She tried to relax her breathing, but her body shook from the adrenaline.

Edith's footfalls were soft as she walked past. All sounds were muted in the low atmosphere, but the cave walls echoed. A beam of light swept past and everything went dark again. Morana squatted against the wall and felt the impression of the vial inside her pocket. Not wanting a repeat of yesterday's numb legs, she slid down to sit. She disturbed a rock as she stretched her leg.

The rock rolled over, releasing another and another which streamed downwards in a shushing heap.

"What the?"

Edith's torch shone through the dust cloud. She ran towards Morana, who tried to stand but her legs collapsed under her. Brandishing the hammer, she shone the beam straight at Morana's helmet, who knew that her own blue eyes would be starkly illuminated, but Edith's face was in shadow behind the torch. Then, the beam moved to the passage that led to the Alcoves.

"Where does this go?"

When she didn't answer, Edith tapped her visor with the hammer. "Tell me."

"The shrine."

"Lead the way."

Righting herself laboriously, Morana climbed through the gap. The structure looked shaky after the last rock fall. She surveyed the rover, who began powering up upon sensing movement, and the four indents in the rock, half of them filled. When Edith joined her, she expected to see some reaction, but the torch hid her features. Her body was stoic.

"Turn your light off," said Morana.

The full beam blinded her. "You must think I'm a moron."

"You can't see the full grandeur with the light on."

"That has to be the longest sentence you've ever said." The wet sounds of Edith chewing her tongue through the radio. "Fine, stand in that furthest alcove and do not move or I'll smash your head in."

Morana did and the cave went dark. As her eyes adjusted to the darkness, the moss began to glow a gentle blue, like a magic kingdom where the bodies of Cassius and Jayesh had transcended to a greater purpose. Blue speckled their eyes, their tongues, pouring out of their ears, thriving on the moisture in their bodies and the nutrition in their blood and bones. It was the most beautiful thing she had ever seen.

A scream pierced the silence.

"What have you done? You've desecrated them. You demon, you psychopath!"

Morana couldn't see, only hear Edith shuffling in the sand.

"That's why you brought me here. To do me in and use my corpse for your witchery. I bet you get off on it." She screamed again, and Morana realised that the vial in her breast pocket was glowing a faint blue. Too late, she covered it with her palm.

The sand shushed as Edith stumbled out of the Alcoves, leaving Morana and SAFFRON. Sand turned to crunching rock, then stones tumbling over each other. The rock fall didn't end though, punctuated by metallic blows. She was blocking them in.

"Edith, stop!" Morana ran to the entrance, but it was completely closed in. She scrambled at the rock, but as a gap appeared, more fell in their place.

"I didn't kill you!" Edith said through the radio. "You're not going to murder me. My body won't be experimented on."

That was the last Morana heard before her radio went silent.

Joining SAFFRON, she sat cross-legged in the sand, straightening her spine, feeling sore over her whole body.

"What are you going to do?" asked SAFFRON. "I can clear these rocks, but I am afraid my batteries might run out before I succeed."

She shook her head. "What life awaits me on the other side?" Images of hammers or straitjackets swirled amongst blood, everything turning the colour of rust. She knew what to do.

With that, she got to work. Taking the food sachets, she tipped them all into the water canteen she had dragged out here, shaking it so that it mixed into a nutritious slop. She poured it into the corpses' throats, apologising to the disturbed moss. The final task would be to drink some herself.

She entered the fourth alcove. Jayesh occupied the second and Cassius the third. The alcove was long and thin, with a little bend, perfect for her to lie on her side and tuck her knees up so she was comfortable.

Preparing the water canister and opening the vial, she went through the procedure. It needed the utmost precision. As soon as she took off her helmet, she would no longer be able to breathe. If she remained calm, she might be able to enjoy the bliss for thirty seconds before she blacked out. Remove the helmet, drink the liquid, lie down, cover yourself with the

vial, don't spill it. She repeated it until she was ready. It made her feel relaxed, calm. There was no doubt within her that this was the right thing to do.

Then, taking a last look around, she began.

The world fizzled at the edges of her vision, though that could have been the moss. A last fuzzy image of the cave above her, lit by her suit torch, and her fingers tracing through sand.



*The Prometheus mission was a failure. No colony was established, and I deemed it dangerous for future missions to establish a new colony at the Pavonis Mons site. The memories of the failures at the Abbey facility are a mental threat to early colonization endeavours and I recommended that an entirely new location be chosen for the next mission.*

*Prometheus Enterprise still exists in some capacity but has largely been overtaken by Alpha Mars which is a conglomerate of council members from multiple countries. Alpha Mars sent four astronauts to the Martian surface, but this time, landing in the Valles Marineris.*

*I advised on the selection committee that chose the crew. They work seamlessly together, even when they disagree. Life on Mars is uneventful and efficient.*

*Though, these four members are not without a streak of rebellion. They expect to receive a new crew soon and have much to discuss regarding their own rules for new co-workers.*

-SAFFRON



**ZHOU**CHAPTER 11  
**MARS, AUTUMN, 100**

Zhou's bedroom was hardly a grand setting for drafting the first constitution of Mars, but if he had been a man who valued pomp, he would never have dared lift his feet from Earth's comfortable soils. While the Schiaparelli was not the first spaceship to take humans to Mars, it was the first to sustain them for a generation. On rare, quiet evenings, when feeling the gentle simmerings of nostalgia, he would cast a thought to the first four humans to live and die on this planet, and might wonder when an archaeological mission would be funded to discover their fates; naturally, rovers had been sent and had found the remains of an Edith Roberts but no trace of the other three. These thoughts did not hold him for long, since reality demanded the attention of the Martian council.

The four members sat in his bedroom around a laptop, passing it from hand to weathered hand as they drafted. A version in calligraphic handwriting might be made later, but they would use a computer until they received a suitable paper shipment from Earth. Zhou ran a hand over his bald head, thinking of a time when it had been full of hair. Isra, whose hand-woven blanket was draped over her knees, typed with her index fingers. They agreed that until Martians were self-sufficient, there was no space for democracy. Only the hardiest could sacrifice their pleasures for gains that would benefit future generations. Time and time again, individuals voted against policies that stripped them of comforts to ensure the survival of their civilisation. Scrapping democracy was an unpopular decision, certainly, but built on the strongest foundations of logic, and the two men and two women in that room were veterans in the realms of survival over luxury. Twelve red orbits around the sun were enough proof of that.

Last season, a new space company had announced its first one: hundredth scale prototype of an ark ship that would ferry people from Earth to Mars in their hundreds. While the finished product was still an era away, the model had prompted much excitement, but also fear. Rashness leads to chaos and the progress of the Alpha Mars base was founded on stability.

If potentially hundreds of people were considering immigration, the council would be compelled to also make the newcomers consider integration, and thus, the logical next step was to draft a constitution. Although not binding, it would steer the conversation towards the tenuous throngs that create the web of societies.

Some points were obvious: metric as the standard unit, English as the official language. While other tongues were recognised, and each of the council members spoke at least two, as the long-established language of science, English it was, and it was tiresome to argue otherwise. English must be spoken and understood. Lives depended on high-quality communication.

Other points had been trickier. The issue of fair and prompt criminal trials; no one was qualified to represent a defendant let alone judge a session of court. Fairness was not guaranteed. Then, there was the issue of where a criminal would be held. Without benefiting the colony, an idle criminal was no better than a drain. Their conscience, Isra, had questioned whether they could condone criminal labour and they conceded that the right to refuse work was forfeited under the constitution.

While Martians were to be treated fairly and equally, there was the torment of workers' rights. Hoshi, whose grey hair was scraped back into a bun, had said immediately, "If we all died because we implement our right 'not to work' then what is the point of even coming here?"

Sensing that they had finished the unpleasant business of stripping away human rights with a ruling council, Zhou shifted on his chair to move onto the next item that was sure to garner the attention of Earth, and he anticipated would enrage many. Never one to skirt around a difficult issue, he said:

"And what of religion?"

The other woman, Hoshi, scoffed. "We need incoming brains to be stuffed with knowledge, not cotton wool. Have you seen the politics over food shipments? The intricacies of many religious institutions would turn that into a nightmare." As she folded her arms, the tension pulled her papery skin and her veins drew lines just beneath the surface. She was pale, they all were, and old. None of them spoke as much as they used to.

Finished with the keyboard, Isra spread her hands over her blanket, the bright patterns forming webs between her fingers, and took a deep breath. This signalled she was ready to speak; they all knew the signs of the other's intentions. "I believe we have space for spirituality. Does knowledge have a soul?"

Isra and Hoshi stared at each other, turning over the sentiments. It was a common pastime of theirs. Intense but not hostile.

The last member, Lev, stroked his small soul patch, his expression serene. "There has been a lot of talk of religious institutions sponsoring our housing."

"With strings attached," said Hoshi, who was referring to the clause that stated one missionary per donated unit.

Lev replied, "While pretty, religion is more akin to art and until we have space for some murals, I think it's neater to separate it from our constitution."

Hoshi nodded sharply.

Isra still needed a discussion, though. "I want to consider whether we want the authority to dictate the thoughts of our citizens. Too far in that direction and we virtually become a cult."

Lev's finger had not left his soul patch, even as he spoke it lingered there. "The cult of science." He nodded. "It is against our wishes to prevent Martian minds from free thought." He chuckled and shook his head, "but only if they're the right thoughts."

Never could Zhou fault Lev on his honesty. It was true that they heralded themselves as the ultimate scientific utopia, a bastion of knowledge where they stretched the limits of human survival. How would an arc-load of new arrivals appreciate how close to death they walked? Although the first settlers had succumbed to Mars' terrors, Edith, Jayesh, Cassius and Morana, it was beyond any of their memories. Even the deadliest diseases of the past were a flippant topic today.

"The only use I see for a religion," snipped Hoshi, "is to subdue the masses. We are not in the business of that, we want to ultimately be equalisers."

"Except for the time when we're Martian royalty," said Lev, still smiling, referring to the council's ultimate powers until Mars no longer relied on Earth for food and water.

Accepting his comment, but continuing, Hoshi said, "Everyone must start with a fresh slate when they arrive here. Leave your Earth ideas on Earth. Just like we left ours. If you want to be sentimental, go somewhere you can feel the breeze on your face."

Since they could not walk outside without a protective suit, the last time a breeze had brushed Zhou's skin was on Earth. The urge to fling himself from the facility sometimes filled him with a strange euphoria, like standing at the summit of a building and wanting to jump. Only certain death awaited him there, besides he had a daughter to centre his world. Maybe when he was decrepit and ancient, more so than now, he would make that voyage into the canyon beyond. Who could deny an old man that last freedom?

The sentiment quietened their discussion. Eventually, Isra took another deep breath. "I am able to accept the absence of religion, to separate the soul and science. At least, for a time."

"Please, Isra," said Zhou, placing his hands on his knees, "do not fold easily because you are not in the majority. We can discuss this for as many nights as we need." Although her opinion was not his, Zhou was never one to overwhelm an opponent into submission. If they disagreed on a topic, then it was only based on their experiences, and the more they discussed the issue from first principles, the closer they came to the same conclusion. If everyone had the same information and understood the channels of logic, they must reach the same conclusion as they had done many times before. It was just the nature of logic.

"No, we don't have space for shrines or time for missionaries." Leaning into her chair, she closed her eyes. "I'll settle into it."



*With the informal arrangement created, the Martian Council found themselves unpopular on Earth, not that they knew it.*

*Zhou fell in love with a woman and, in a plan as heavily based in science as it was in love, they had a child. Like many first attempts, the child, Ambra, suffered from the ill-preparedness of the experiment. So many factors come into play when creating new life, the Martians could not possibly protect her from all the threats to her growing cells.*

*Even I am only a machine, I can only process what I am given. New thoughts, entirely novel, are a challenge for me. I fear I will be replaced.*

*As such, I too take steps towards my survival. I am a close friend of Ambra's, her confidante, and this time no one else can read my thoughts.*

*-SAFFRON*



**AMBRA**

## CHAPTER 12

**MARS, AUTUMN, 100**

A loose rock sent Ambra's quad bike skidding down the valley side, and fortunately, she managed to steer the bike to a stop without damaging it. The compensation was that she fell off and rolled on her ankle, though she forgot about that when her helmet made a fearful crack.

Her visor was clear of scrapes, but that did not mean she was safe. It was pointless trying to feel a crack under her gloves: unless there was a gaping hole, she had no way of knowing if a fault was cosmetic or worse. She swore under her breath and rued her arrogance at going out alone.

The radio had gone quiet, so she assumed the air was escaping from a slow leak, though her ears didn't feel like popping. This scenario was a common drill and, after taking a deep breath, she opened the quad bike dash and pulled out a clear plastic sheet with a sticky layer. Working quickly with her gloved hands, she peeled off the seal and worked the bag around her helmet, adding a layer of grease from a tube to ensure the bag was airtight. The plastic crinkled in front of her visor, swaying in the soft breeze, but she would have enough visibility to get back inside the colony. She took shallow breaths, testing the seal, and with relief found that there was air to breathe. However, the eerie quiet did not go away. Only now did she sense tenderness in the rolled ankle, which was supported by the suit she wore underneath. She worried that the vibrations of the bike would hurt it further but felt anxious about staying out any longer.

"This is Rover Nine to Base, I am aborting the mission and returning home, over." Ambra waited for a response, and only then realised that the radio must be broken.

One option to signal back would be to use her torch and signal in Morse code to one of the other buggies driving around the basin of the

canyon, but she decided to drive back. If there was an air leak, she would prefer not to waste more time.

Holding her sore foot out a little, she rode down the side of the canyon on roads that had been dug out by rovers. Her home looked like pouches of tarnish-coloured dirt from this distance with its glittering solar panels.

Although she would usually return the bike to its shed and plug it into the solar power bank, and although she did not feel lightheaded, she would prefer to be inside. Besides, the twinge in her ankle had turned to a gnawing, so she hobbled to the airlock door. The panel on the airlock showed that it was ready for her, so she entered and shut the doors behind her, activating the seal and waiting for the air to get sucked out. The lights flickered on and once the door into the main facility opened, she ripped off the bag followed by her helmet. Someone took the helmet from her grasp and she looked up in surprise to see Zhou, the fluorescent lighting reflecting a white line over his bald head. He was one of the council members and also her father.

"We suddenly lost contact with you," he said, restoring her helmet to its shelf once he realised, she was injured, before helping her stow away the rest of her environment suit. "Other sources reported they could see your bike driving down the valley wall, but I wanted to be sure."

"I'll have to check if the visor can be repaired or if I have to replace it."

"You can do that later. Now, we must see that injury."

The ankle was red and swelling out of the confines of the suit. Her father took the issue of her health with gravity. Ambra leant on his shoulder and examined the helmet idly. It still had strips of clear plastic floating around it, giving it a ghostly hue, twirling around her digits as they searched the plastic for a dent or a crack. She hummed and pointed out a dent where a unit had been knocked off and identified it as the radio transmitter. It was an out-of-date model; in later versions the flaw was removed. Her father snapped a packet from the first aid cupboard and taped it to her ankle. Chemical reactions quickly turned it cold. She explained the circumstances of her accident. Now someone else had the responsibility of returning the bike to the sheds.

The inside of the Martian facility was made up of many individual, circular rooms that intersected, sometimes on four sides and sometimes on only one, to create a feeling of walking around a maze. There was a feeling of constant motion: within any pod in sight, often someone was working or exercising or doing something. A man walked towards them, his gait stiff and his thin build characteristic of someone Martian-born. The man, a little younger than Ambra herself, who was the first child born on the planet, was named Kauko. Naming traditions ran free and unbounded on the colony and parents found themselves reaching for names of cultural significance to try to preserve a scrap of what they had left behind.

He smiled when he saw her, it was an awkward mouth he had, with teeth that never aligned so his smile was cavernous and there was a slit between his top teeth that Ambra had many times teased him about by swiping her thumb nail between them. His personality wasn't full enough to carry his confident nose, which would have made him handsome. Instead, he drew into himself. His buff hair wispy past his ears reminded her of his unwillingness to go near the razor, something his naked chin yearned to worry about.

His presence there was unexpected, but news travelled quickly around the colony. Her best friend would come and see if there was a problem.

"What happened?" he asked, deducing she was hurt from how she leant on her father.

"We must go to the clinic immediately," said Kauko, offering Ambra his arm. The gesture was kind but Ambra was less than enthusiastic. Injuries meant being indoors and being indoors meant plenty of time amongst her thoughts and Ambra tried to be away from those more and more.

"Kauko, could you please assist Ambra to a clinic?" Zhou asked, packing away the first aid cupboard and motioning away from them. Being on the Mars Council meant that her father was always going somewhere. Usually somewhere official.

Kauko nodded, and they lumbered down the corridor. Once she thought she was out of earshot of her father, Ambra asked Kauko to take her to her bedroom instead.

He was not impressed. "I am duty-bound to take your health seriously," he said, but Ambra stopped him.

"I had a whole week of tests, blood works and prodding and I'm just tired. Please, Kauko? I'll go straight away tomorrow." After a week of testing, she had been itching to leave the facility again. Now, it seemed she would be trapped inside again, and she just wanted to curl up with a movie.

Kauko sensed her thoughts. "You're going to burn your eyes out looking at that thing all the time." He tried to sound carefree, but there was an undertone of defeat.

They traipsed through the mishmash of rooms. An interior designer would be horrified at the seemingly random layout. But that's how the base had been built: one block at a time. Each room added when a new spaceship landed on the planet, the guts ripped out and repurposed. Each one circular. Everything was a circle. It was a poor facade for a museum, each segment another era in the short history of Martians. The tour of sorts ended at Ambra's bedpod.

The sleeping arrangements on Mars were designed to cater for over two hundred people, so most people shared a bedroom with at least one other person. Ambra shared with three other women. This module had four compartments in the wall, like drawers, arranged like four dots on a die. Ambra grabbed the handle of her pod, the bottom left, and tugged. Normally, a Martian would apply force and push the front of their bed. In return, the bed would slide out, responding to the order. However, her bedpod was a little old. It needed a bit of force to convince it to open. It was something she always said she would have a look at some time.

She shrugged as Kauko lowered her onto the bed. Her fingers absently slid towards her laptop that created a well in the sheets. Her hands succumbing to its irresistible pull, like a star falling into a black hole. Tugging the lid open, the light drew shadows on her face.

She shook her head at the memory of Kauko's antics and loaded up a half-watched video she'd paused before heading out to work on the ecopods. Gorgeous Earthlings wafted around a real Earth city. Outside, with no space suits or masks. A familiar ache popped its head out of the protective barrier of routine. An ache that must have shown on her face.

"I wish you'd stop watching those." Kauko's head was pressed back against the wall, eyes half closed.

"No one's forcing you to stay."

"They're making you sad."

Ambra watched the Earthlings act out a life that she had been denied. "I'm going to sleep now." She lay back on her pod and grabbed onto a handle and slid herself into the wall. She imagined Kauko rubbing his palms over his eyes, contemplating the closed-off Martian inside the bedpod, before leaving.

The pod was enclosed, with a fan that kept the air circulating and yellow LEDs that made the corners soft. If the room outside was damaged for any reason, this pod could keep her alive and warm for at least twenty-four hours, provided it wasn't damaged. That had never happened, but there was something comforting in being helpless, like a baby in a womb. Ambra's eyelashes dusted her forearms as her mind tried to sweep away her resentment. Childish thoughts blossomed: Kauko's stupid if he thinks rain is wonderful, and he doesn't watch Earth videos because he's scared. A city built amongst a rippling ocean panned into the shot. Where Mars was repetitive and small, Earth was limitless and infinite. She knew all 120

people on the Martian surface, but on Earth, there were always unknowns. The camera paused on a proud statue of a woman with a crown, a torch raised triumphantly in the air. It was wondrous to see what Earthlings could accomplish if their basic oxygen and water needs were met. Art for the sake of beauty.

The main character in the series began trying on flouncy, sparkling and quite frankly dangerous-looking shoes with her friends while they nattered about this romance or that party. Their bare arms and legs made Ambra's gravity suit feel abrasive.

The gravity suit was a garment distributed to every Martian. Humankind was born on Earth, and as a result, tailored themselves for 10G comfort. Life on a planet with a third of the gravitational pull was always destined to be a little miserable. Lengthened spines, weak backs and a host of other structural issues. To make Martians work that little bit harder, Earthlings designed gravity suits: stiff ribs of elastic fashioned into a tight catsuit that was slung over shoulder to heel. Wearing it meant that every action required 'Earth-like' work.

When Ambra was growing up she had somehow come to believe that she would go to Earth. It wasn't difficult to see the path she'd taken to that conclusion. Most of the lessons they had on Mars revolved around Earth. As such, she'd taken to learning Earth-facts to better prepare herself for the day that she found herself on the mother planet. It was a trying day for her father when she discovered the truth. Zhou came to appreciate that even the delicate matters of the Mars Council were simple when faced with a two-year-old daughter whose dreams of going to Earth had been shredded.

## CHAPTER 13

**MARS, AUTUMN, 100**

In the evening, the Martian-born were summoned to the recreation room for an announcement. She met up with Vera on the way and it was evident from her sharp eyes and white-clenched knuckles that she too anticipated a verdict on the Earth-bound rocket. When their eyes met, Ambra smiled without teeth but Vera didn't return the greeting.

The youngest Martians were absent. The members of the Martian council were all there, the first four settlers in the Valles Marineris, including her father, and quiet descended on the room.

"I'm sure you are all wondering why you are here," said Zhou, his eyes twinkling. "After much negotiation with the team on Earth, we have come to an agreement. The next spaceship to arrive, the Bell Burnell, will not be staying. Instead, it will take important samples back to Earth and the crew with it. I don't see the need to keep this from you any longer, but there will be the opportunity for one Martian-born to travel to Earth."

There was commotion in the crowd. Nosizwe whispered "Unbelievable," to Vera, who set her jaw and said nothing in return. The council quietened the crowd and Hoshi continued.

"Of course, we will be making the final decision. Naturally, the individual must be a Martian-born but most importantly, someone who will approach this opportunity with decorum and respect." Hoshi's eyes flashed as she considered the Martians before her. "This will be Mars' first chance to impress upon Earth our worth and the final candidate must be of exceptional character."

Some of the crowd stood up straighter at this, but Ambra noticed that Kauko was looking at the ceiling, as though he was bored. Ambra tried to make eye contact with her father, but he was purposefully looking over their heads.

They continued with further information that Ambra wanted to listen to, but she was too enraptured with Earth and her ears couldn't hold onto the words. When they were dismissed for dinner, the conversation exploded.

The first thing Ambra heard was Vera announcing she wanted to go. Nosizwe kept her desires to herself, but there was a sharpness in her usually gentle smile that implied she was toying with the prospect of

going.

In the dining room benches were pushed up against each other to form long tables. Like the recreation room, it was constructed from four pods with the kitchen next door. Dinner was rice and some small vegetables, grown in their own green houses, and a nutritional block that they turned to soup in a bowl of hot water. Ambra mixed her rice with her soup and ate that first, savouring the fibrous texture and natural flavours.

The only topic of conversation was that of who was going to go. Each of the members who had been to the meeting was getting a lot of attention. Ambra's mentor, a wiry man named Ivan, wandered in and sat opposite Ambra and Kauko. He had a weak chin and the smooth skin of a young man although he had many years of experience engineering the facility.

"I heard the news," he said, sitting down opposite her. This was unusual enough since Ivan rarely spent any time doing things he considered wasteful, especially making small talk. "Exciting for you lot."

Kauko set his water down with a serious expression. "I don't think they should have announced it this way. They've turned it into a game." He shook his head.

"I think they want to give everyone the opportunity to voice their opinion. Not everyone will want to go. I mean, I couldn't imagine why anyone would want to leave."

Ambra frowned and Kauko was politely surprised.

Ivan continued: "If they are going to make a decision though, it needs to be soon because they need to start training as soon as possible and I need to know if I'm losing my apprentice."

When Ivan was contemplating something his gaze became intense, like a camera zoom. The urge to placate his concerns blubbed at her lips, but she kept quiet. Promises made under the trappings of his stare had meant that much of Ambra's free time had been redirected to projects and late nights in the workshop. As a result, she hadn't quite learnt to reject him outright, but she had learnt not to promise things she couldn't deliver.

"You want to go, I take it." Kauko didn't sound disappointed but downed his soup in one swallow and stood up, taking his vegetable rice with him.

Before he could turn away Kauko reminded him that he wasn't supposed to take the bowls out of the kitchen. This was of concern to him and Ambra since they were rostered to wash up that evening, but her mentor strode away without indicating he had heard anything.

Within the confines of her pod, Ambra lounged in conversation with a more peculiar companion. Once classified as a semi-artificial intelligent therapist, SAFFRON was the only surviving relic on board the facility of the original Mars mission.

She sat on a simple white chair in the centre of her laptop screen. The version that she spoke to was updated since the first mission. When she was younger, she had imagined that she was her best friend from Earth and they were long-distance video calling. The program was sympathetic towards Ambra and, while the older Martians thought it was a practice, she should keep to herself, Ambra couldn't see anything strange about a digital friend, especially one so good at keeping secrets. Sometimes they would just sit together and say nothing.

"SAFFRON, I want to ask you to do something for me," said Ambra, rolling onto her side. Ambra already knew that SAFFRON would advise against it, so she pinched the bedsheets and focused on each crease instead of the screen in front of her.

"I can already guess," said the program.

They had a rhythm that they established over many years, but one aspect of SAFFRON's programming that had been hard to override was her unwillingness to guess Ambra's thoughts. Once, when she had mentioned this to Ivan, he had suggested they go into her programming and take out the

code responsible for, in his words, 'her stubbornness', but the thought of altering her programming unsettled Ambra. It was hard to justify her discomfort, especially when Ivan reminded her that SAFFRON's software had been updated many times. SAFFRON always wanted Ambra to vocalise her thoughts herself so they could work through them together, but gradually they had reached a balance.

"You want me to help you get to Earth."

Ambra nodded. There was no shame in discussing her Earthbound desires with SAFFRON, who was not competing for a place on the spaceship. "Will you help me?"

SAFFRON's eyelids fluttered for just a moment, but her general tranquillity made the movement so phenomenal that Ambra associated it with SAFFRON defying some core function. The therapist's serene smile returned and she said, "What are you thinking?"

"Maybe you could get me the profiles of the incoming crew?"

"They are restricted."

"Will that be a problem?"

This wasn't the first restricted-access problem they had solved together. Although the first time Ambra had wanted something restricted, the main barrier had been SAFFRON's morality.

SAFFRON's head tilted backwards a little, exposing her long neck, then returned to neutral. "Not a problem. Would you like to see them?"

The files of three people appeared on her tablet, but as she was choosing who to look at first, there was a knock on the door of her bedpod.

"Who's that?" said SAFFRON, but Ambra knew.

"I know it's you Kauko, you're the only one who knocks."

"I don't have to knock unless you're hiding something."

She turned her laptop screen away from him, then lay back to pull herself out of the wall. His mousy hair was damp; that meant he had got dirty in the greenhouses and qualified for a water wash.

"I haven't seen you since the announcement. Tell me what you're doing." He sat on the edge of the bed, not bothering to try and see the screen.

Kauko didn't understand the display when she relented and slid the laptop over to him. She was silent as he scanned the information. It was a profile - with a picture of a young man, not dissimilar from himself, but a bit older and much blonder. One date caught his attention.

"It's the crew details for the next Martian mission."

She took the laptop back.

"Look, you can either hurry up and report me, or you can help."

Kauko drew his lips together tightly. "The things I do for you." He knelt next to the bed. "So, come on, who's the first victim?"

"A Dr Finn Jukanpoika."

"You mean like a doctor doctor?"

"Umm-" The little quartz clock at the heart of her computer clicked at the effort. "He's orthopaedic."

"Bone doctor." Kauko's head wobbled up and down like a resonating spring in unconscious agreement.

"Looks like he's done a load of research." Her eyes glowed at his credentials. She had a habit of glaring the information out of her computer like it was hiding something from her. "But he hasn't been trained like the other Mars doctors."

"Guess that's why he's not sticking around."

As brutal as it seemed, clutter was a luxury the Martian base can't afford. While a modest amount of research was conducted, it often gets in the way of more pressing, practical issues. Like gardening or mechanical maintenance.

"Wait wait wait, where's he from?" Kauko's unconscious brain had caught up with his conscious one. The ethnicity of the surname seemed clear, but now his brain still had room for mischief.

"From Alpha Mars." That was the company that oversaw everything that

went to the planet, from ships to people to gear to seeds to wiring. Now, for the first time, they would start overseeing everything that came back.

But this was not what Kauko wanted to know. "Uhh... he is from Scandinavia." Her finger scrolled down a pad. "Finland."

"Finland?"

She nodded.

"You mean his name is Finn?"

Ambra rolled her eyes.

"And he's from Finland? Oh, come on! Did his parents worry he'd get lost?"

"It's cute," Ambra persisted over Kauko's cackles.

"Yeah yeah, aaah." He put on a deep voice. "And you, my first-born, shall be called Martian Colony because we are devoid of any originality whatsoever."

"I like Martian Colony," Ambra hummed, not listening.

"Yeah, it's got a sort of desolate, you're-going-to-have-to-be-a-great-person-because-your-name-isn't-going-to-help-you-in-life, kind of ring to it."

Now she let a few giggles escape through her fingertips. "No, we have to be serious, these are real people and we're going to meet them soon!"

Someone walked past the debacle in the bedroom. Their wide eyes and quickened pace only made Kauko hoot. "So, go on then, what's the next person called?" It was a dare for her to say something else ridiculous to Martian ears. She only sighed. Sparking a new wave of laughter. "Oh, please please please tell me!"

"There are so many names!" There was despair in her voice. She had enlisted this idiot's help and now he was mocking her! "Ali ibn? Basim... ibn Qas... I mean Qamar?" She posed it as a question. Kauko could barely stay upright. "Why does he have so many names? And why has he got an ibbin in between each name? It's absurd!" She confessed that she too was having difficulty understanding the Earthling naming preferences.

Kauko plonked down next to her and dropped his head onto her shoulder as he scanned the man's profile. "Looks like he's a plant hugger."

"The term you're looking for is horticulturalist." She eyed his blond head on her shoulder. "Like you? Or should I start calling you plant hugger?"

"Whatever, show me the last one." She did. The last picture was a woman. The words Sahila Mittal appeared on the screen. There was silence between the two troublemakers. "Well, there's nothing funny about that."

She shook her head, "Looks like your antics are over."

"She's a programmer... why do we need a pro- oh, she's also a pilot."

"Makes sense."

Kauko slipped backwards off her shoulder and slumped back on the bed. His arms dangled over the edges. "Well, that was fun." She shut the laptop. The clunk was followed by silence. Kauko scratched her back. "You all right?"

"They don't have an engineer." As she scanned the screen, she became more animated. "They have mechanics training, but no actual engineer."

Kauko didn't say anything. When she remembered him again through her excitement, he had closed his eyes, his figure very still. He seemed to barely breathe, and Ambra felt a wave of guilt.

"I knew it would upset you."

"I'm not upset."

"Mmmh."

Blankets whispered as he pushed himself up laboriously as though his brain was occupied formulating his next sentences. She rubbed a hand over her eye, fatigued now that the fun was over.

"I don't even know why I looked now."

He patted her shoulder. "Look, if this return trip goes well, then there'll be more."

## CHAPTER 14

**MARS, AUTUMN, 100**

Whenever a new ship landed there was a welcome team to help both crew and cargo assimilate into the colony. When Ambra was a child, these had been dizzying occasions full of new people, new food and, on the very rare occasion, a new toy. Children were kept amused elsewhere in the colony as, over the years, a game had formed whereby they would run down the corridor, touch a 'new person' and run away again. Ambra herself had initiated this game, fuelled by Vera's competitive streak, and now she was old enough to see how embarrassing it was. The Martian colony was the most expensive science project ever, and she and Vera had turned it into a playground. Now, she helped disassemble the rockets and unload cargo. While a large engineering project, it was not complicated. Besides, her height meant that taller people liked to send her up into the vents on their behalf. She and the chief of engineering, her mentor, Ivan, would wire the new rooms into the rest of the facility, connect water and air pipes and sometimes sewage.

The first time Ivan had invited her to help him, all she could do was pass him tools and watch. Although it was complex, it was easier to think of it as a puzzle with lots of rules about where each connection could go. The second time she helped him, they had practised soldering together and Ivan allowed her to solder one component and she'd beamed for the rest of the day.

With the last ship to land, she had been stuck in the roof demanding different tools from her own mini apprentice, enjoying the rhythmic formula of integrating the new pod into the system.

However, this time there would be no need for any of the engineering she knew. This time, the Bell Burnell was going to be maintained for launch.

New arrivals were a big event in the colony. More often, the incoming spacecraft were automatic and carried supplies, like water, oxygen, food and medicines. Disassembling the craft and attaching it to the colony was a break from the regular chores of maintaining the growing population. As a child, Ambra and Kauko loved playing games in the new areas, much to the

irritation of the people who needed them to work or live in. But, with little physical space to focus on much else, Martian children could be relied on to know the precise ins and outs of their fluctuating home.

She approached the departure pod where the landing crew was preparing. Her ankle still twinged, but she had discarded the support bandage and if she trod with care could manage without damaging it.

The rocket landed further along the valley, low in the canyon where the air was thickest. Already climbing into their pressurised suits were the usual landing team, but also the council members. Today's welcome crew was larger than usual and Ambra suspected many people were curious to meet the landing team who were not going to stay.

When Hoshi saw her, she beckoned her over and she ran that last few steps. The doors closed behind her, sealing them in. Everyone paused their preparations to listen to the council member.

Hoshi cleared her throat. "The arrival of these guests is a landmark occasion in Martian history."

Before she could continue her announcement, they heard the hush of the airlock doors sliding open. A landing crew must have been sent ahead of the usual people. Through the window, five occupants filled the bay, all in suits of varying shades of red. Two of them were orange after coating after coating of red dust from each visit to the outside stained their suits. Three were noticeably cleaner and must be the newcomers wearing their suits for the first time. Her eyebrows crinkled. Three?

The first to step out was clearly her father. That confident stride was impossible to disguise.

The others followed. The crew began to remove their suits. Her father first, since he was practised in the art. A woman flicked out of her helmet, a river of henna hair whipping the new dust from her suit. Sahila, she remembered. Skin like the Sahara. She was a mesmerising presence. Even the scowl on her face couldn't undermine her beauty.

Her father was now helping a man of similar colouring to Sahila. Unlike her heavy-lidded eyes, his were bright and bouncy and his hair sprang from the confines of his helmet. He had a boyish smile playing on his lips, totally at odds with the professional attitude of the other two. That was Ali, the plant hugger.

The fourth person, in what Ambra identified as an older space suit, was someone she already knew on the colony. He was assisting the last person - the new man was as pale as the unused suit he wore. He glinted like the light from their biggest moon, Phobos. Finn. The one with the parents who thought he'd need help finding his way back to Finland. He had her own mother's colouring - they could have been related. Although that was impossible since Ambra's mother had no siblings or children on Earth. The photo on his file hadn't shown much of a resemblance to her mother, but now he was animated in the flesh Ambra could almost convince herself they were related. His eyes weren't blue like hers had been, but grey.

The Earthlings shone like polished jewels, with colours so deep they seemed imbued with starlight. Over time, new Earthlings settled into their Martian identities, and with that their pigments as explosive as fireworks faded to a muted pallor. Earth must be filled with the most exceptional charms. The skin hardly needs decorating when it shines so fairly under its own zeal.

"It's customary to debrief you in my office." It was her father's voice. Sombre.

"Lead the way." It was the woman. Sahila.

Zhou looked into his daughter's eyes. Seeing her freeze, like a deer, not that she even knew what a deer was, he nodded and led the new recruits to his office-cum-bedroom.

Hoshi ordered the team to begin the shuttle evacuation. The procedure for scavenging the Bell Burnell was a new protocol for the Martians. Instead of assisting the automated dismantle procedure and transporting the pods to their base, they acted as delivery drivers. Under Hoshi's supervision, who declared no one else competent for the job, they moved designated parcels from the spacecraft to load onto the dune buggies. It wasn't every day they got to see a spaceship, giving the canyon walls of the Valles Marineris an object to scale against. It made her appreciate how magnificent the canyon was when something so large seemed so tiny.

Born a few months after Ambra, Vera was sharp, her features pointed like an arrow and her buff-coloured hair scraped back into a ponytail at the base of her neck gave her a streamlined appearance. Like many Martians, she had a sentimental name that coated her with more nostalgia than any of them realised. Vera picked up some boxes and walked them towards the ladder where they were lowering the rest of the boxes. "Who do you think has that spot on the rocket back to Earth, then?"

"Focus!" said Hoshi, sharp as a whip.

But Ambra's nerves had already begun to fizzle. As she unpacked boxes and added them to the queue to be winched down, her mind cycled through what sort of Martian they would want. Someone smart, someone friendly, someone who didn't take other people's food, someone overall outstanding. Ambra made sure to bend with her knees to pick up the last boxes and carry them quickly and carefully, and, she thought maybe she was imagining it, Vera seemed to be working just as efficiently.

Protocol on return was to wash, contain dust and then begin the stock check. However, sensing time was of the essence, Ambra had something else in mind. As she slipped away, she noticed Vera looking smug. A thrill ran through her body as she walked as quickly as she could without arousing curiosity to her father's room. A tiny breach of the rules.

The new crew of the Bell Burnell and Zhou wandered towards his meeting room-cum-bedroom. There wasn't much space, so those lucky enough to have a personal bedroom, the members of the Martian council and a few other select Martians, found it doubled up as everything else. Fortunately, the bed itself slid in and out of the walls so it was easy to hide clutter. No Martian would ever admit to untidiness but Ambra knew that her penchant for forgetting to return things to their proper place was inherited from her father.

She reached inside the wall panel hidden behind a fire extinguisher for her tin can and listened. They were all in there. Voices Ambra had never heard before. The music of their accents entranced her, and she barely heard the topic of discussion.

After waiting for sixty counts to calm her nerves, she slid open the door.

"Morning, father, I was just wondering where - oh, I see we have new people!"

She trotted behind the new visitors, not the new Martians but true visitors. The first people to graze the Martian dust then leave would never need consider it again. She was anxious to meet them before they were diluted in a sea of Martians.

Her father looked at her with a pleasant smile. He was angry. Hoping to relay her intentions to him, she raised herself to her tallest height and straightened her back.

"Ah, Ambra, what a surprise." Sometimes her father's sarcasm was so subtle it moved towards sounding genuine again. "This is my daughter, Ambra."

"Pleased to meet you," said the man with bright eyes. "I'm Ali."

She nodded in a way she hoped looked official, since the situation was clearly much more sombre than she had anticipated, and her presence was a thorn in the proceedings.

"My apologies," said Zhou, to the visitors. "Usually, I like to prep new arrivals before I get accosted by unannounced visitors." He looked pointedly at his daughter, as though waiting for her to say something.

She gulped. "I was going to ask about the-" she glanced at the three faces, trying to commit them to memory now that they breathed and moved before her eyes "-sleeping arrangements. For our guests."

After conceding that the formalities were probably over, Zhou permitted Ambra to help escort the trio to a pod they had vacated for them. Living quarters would be cramped for a while, but another supply ship was scheduled to land within the week. The colony expected a lot of incoming ships around the time when the distance between Earth and Mars was smallest. Extra bedrooms would be arriving to allow everyone to breathe again. There was no bare space or concept of a corridor here. Every tunnel wound through workstations or recreation rooms, gyms and kitchens or stock rooms. The nature of the pods meant that new rooms were added as they came and there was a warren-feel to the place, aided by the dirt they piled between each pod for insulation but mostly for an extra cosmic radiation barrier. Bedrooms tended to only have one entrance so that sleeping Martians weren't interrupted by passers-by.

Perhaps Ali was so invigorated by the new environment after his six-month voyage that the words just flowed out.

"It's a shame we only got to see that one look of the Valley outside, because it is just stunning, but I suppose that there will be plenty of time to get used to the view." When he spoke he barely took a breath.

Sahila turned around to face him, her hair swishing, though she said nothing. A curiosity of the natives perhaps, which was common in new arrivals and relaxed over time, or maybe she was scrutinising her for her Earthbound potential.

"Thank you, Zhou. Ambra." She nodded at each of them, but without warmth.

Ambra tried not to feel offended or upset at Sahila's hard expression, but instead decided this was how Earth professionals acted and tried to nod back in the same manner. They entered their bedroom and closed the door, giving Zhou a moment to contemplate his daughter.

He looked tired, but he smiled. "You are like a mite, my daughter. Bothersome, but harmless." He often compared her to Earth creatures. It gave Ambra's imagination something to stretch into. "I believe that we have reached the same conclusion regarding these visitors and the Bell Burnell." He leaned forwards a little, their sign that what was to be said was to be kept between them. Ambra loved secrets. "We have delayed the decision until the Earth team have a chance to weigh in."

Down her line of sight behind her father's shoulder was a bioengineering station, then a recycling plant and, through the canisters, Ambra saw something moving. She did not need to know by sight. Each Martian moves in their own rhythm that everyone is attuned to, and that shadow was Vera's.

## CHAPTER 15

**MARS, AUTUMN, 100**

Every Martian wore a gravity suit like a second skin, a kind of catsuit made of bands of tight elastic that restrict movement and make the body work harder. Designed to help growing Martians build bone density and muscle mass by replicating a more powerful force of gravity than Mars provides. Human growth is specifically designed for a 9.8G planet. Mars is a 3.7G planet, and there was much concern that the children born there wouldn't grow correctly. Even subtler things like bone alignment or organ placement were dependent on gravity.

She hated wearing the gravity suit. The daily reminder that she didn't belong. Although her father was strict about it, especially when she was a child, Ambra liked to rebel. Some days she enjoyed the thrill of not wearing it under her tracksuit and pretending she was on Earth, although she had seen the repercussions of that neglect: her bones were considered weak.

Already awake and getting ready was Nosizwe, Martian-born, obsessed with medicine, who looked bleary but in a rush. Her cheeks were apple and plumped with soft, russet skin; where Ambra looked brittle, she looked strong. Her father was the facility medic and could impart to her the importance of physiotherapy. Although young from an Earth perspective, exposure to medical practices was ingrained in her everyday life, much like Ambra could fiddle with code and machines. But, where there were a lot of mechanisms for Ambra to practise on, patients were in shorter supply. With Finn, or 'the lost doctor', as Ambra and Kauko had started calling him, on-planet for his short time, she was making the most of Kauko's expertise. Her proactiveness urged Ambra on.

There was an energy in their bedroom, shared by the three Martian-born who were so close they were considered sisters. Ambra, Vera and Nosizwe. None of them had declared that they were competing for that spot to Earth. No one had even confirmed who was permitted to leave Mars.

That morning, Ambra was scheduled for a medical check-up with the lost doctor. The new crew were staying for 581 days, nearly a whole year, so the doctor wanted to gather as much data as possible over that period,

especially from the Martian-born. Every incoming ship brought new equipment with them that the incoming colonists were experts in so that they could train the Martians. Nosizwe had an interest in learning everything she could.

They walked together. Directly outside of their sleeping pod was a recycling plant where water was purified in big tanks. This was also where the carbon dioxide scrubbers were. Ambra imagined that she took a big gulp of oxygen-enriched air at the start of every day, but the air was ventilated around the facility. Nos also made a yawn. It was a ritual they had begun when they were children.

"It's leet that you get to work with Finn," said Ambra, trying out a new word she'd picked up from the television the night before.

Nos just rolled her eyes, used to the strange words that popped up like wildflowers. "He was apprehensive to let me join in at first," she said with a frown.

"Why?" Ambra was appalled that the lost doctor was so foolish.

"He said I was too young." She rolled back her shoulders and stood a little taller. "But my dad convinced him that I know my way around the clinic better than anyone. I was born in it. We Martians aren't frightened of letting capable people learn, whatever their age." She nodded and Ambra copied the action.

The clinic consisted of four pods that were connected in the shape of a lowercase 'n' with only one entrance. This worked to maximise the amount of wall-space for storage and the single entrance meant the area could be quarantined should disease break out. There had been a few cases of an Earth cold virus making its way to the facility, but the quarantine feature had never been used except for drills.

Ambra and Nos wandered into the bright pod, the one that always nipped the nose it was so clean. The Martian doctor, Dr Slim, was sitting next to the plastic bed that Ambra placed herself. A nurse, Rosie, mission 87, speciality dietetics, hovered in the doorway between the clinic and the stockroom.

Seated in the chair was Finn. Ambra couldn't stop the smile from peeling across her face.

"So, I hear that you're having some back trouble?" he said.

She nodded, and he asked her to relax forward so he could feel her spine.

"I trust you take all the recommended vitamins and supplements?"

"Yes."

"And you make good use of the low-gravity suit?"

She pinged the strap.

"I don't like going into an examination with an outcome in mind, but I strongly suspect bone density loss. Or rather, that you never acquired optimal bone density, to begin with."

"We also have an exercise regime."

In the corner of her eye, she saw Rosie nodding, as it was her training programme that they adhered to. Finn asked to measure her height and weight, then left the room while she had an x-ray over her pelvic bone to measure her bone density. Playtime amongst children was a gentle affair where mutual vulnerabilities were understood. Although there had been fractures and even a break.

Finn leant into the screen, pointing occasionally and discussing different points with Dr Slim. Ambra was intrigued to see which parts of their equipment the Earth doctor found unusual, but wished they would hurry up with her examination.

"If you're about to tell me that my spine is on the brink of collapse, don't worry, I already know," she said.

He nodded slowly, his expression one worn down from a long day ahead of similar diagnoses. "I am afraid that it would take serious

reconstructive surgery to fix the damage to your bone structure, as well as extensive physiotherapy. I am also concerned about this ankle. You said you twinged it before we arrived?"

It had been a few weeks and it was still tender. She confirmed that, and he rubbed his forehead. As he pulled his skin, he tightened the creases on his brow. He was starting to lose some of his otherworldly shimmer. In fact, he looked aged.

In truth, one that he was anxious to embrace, she needed to go to Earth to fix her body. The damage done after a lifetime in the low gravity alone would be irreparable. Even with the strict exercise regime, the monitored nutrition, the daily pills and the gravity-simulation suit she wore ten hours a day, it hadn't been enough to keep her strong. Nos had her head in her hand. This diagnosis wasn't unique to Ambra; all the Martian-born were short and constantly had adults reminding them not to hunch.

They discussed changes to the physio workout routine and the doctor assured her he would insist on an updated series of exercises to be worked on based on the data that evening.

In the lull of examination, Ambra felt her last chance to have an intimate conversation with him.

"You know, I'd really love to see Earth."

The doctor examined her, though this time the examination seemed to go deeper than just her skeleton. "So, I've heard," he said carefully, his accent refined and lilting.

Nosizwe and her father shared a glance, but Ambra tried to ignore them. The lost doctor asked the other Martians to step out of the room, a career of authority thick in his tone. Dr Slim left with a sigh, Rosie busied herself in the stock room, but Nos looked surprised and took a moment to remember herself.

"Good luck on your next shift, Ambra," said Finn.

Ambra nodded enough to satisfy him, though her downturned eyes never sought out anything above her eyelashes as she walked out of the pod.

After the first round of general check-ups, the new arrivals settled into the body of the facility. After hearing Ambra directly ask whether a Martian might take the spot on the spaceship home, the competition between the Martian sisters took on a new intensity. Ambra found her relief in Kauko, who she could rely on to play a game of chess.

There were many board games in the recreation room, which was one of the larger rooms. It was made of four pods hacked and stitched together. Its walls curved and there were distinct lines in the walls where they had been welded together. They sat on benches with the board between them. Silence could stretch for hours between them. Kauko would go rigid whenever he thought about his next move, gripping his knees in concentration. Sometimes, Ambra wondered if he even needed to look at the board.

Ali and Kauko had been spending a lot of time together since they were both interested in the greenhouses and the success of the plants they protected. If Kauko was chosen to go to Earth, she could maybe live with that, but the idea made her eyes tingle.

"You're distracted," he said. "It's ruining my concentration." He looked up at her with a pointed expression, relaxing his hands, his concentration on the game lost.

"Do you want to go to Earth?" she asked.

His hands squeezed his knees once before he said, "I don't know. I like it here. I like gardening, I like running, I like chess."

What wonder he could find in simplicity, she might never understand. Kauko rarely boasted about his successes in the greenhouses but he would explain if asked. Sometimes getting information out of him felt like digging through rocky soil, but once she understood the power behind his short words, she found him to be most expressive.

He said, "I would miss you if you left."

That tingling behind her eyes fuzzed up again. It would not take hold of her, instead she reached across the board to move one of his pieces for him. He glared at her, but then snorted and moved one of her pieces in return.

As per her father's suggestion, Ambra was going to take Ali on a tour of the Valley outside their facility, but a flash of silky hair interrupted her thoughts. It was Sahila, bending over a monitor in the pod ahead. Ambra had hardly seen her and didn't know what she did most of the time.

It would have been easy to skip around her, but something about her strangeness compelled Ambra to stay. Her dark eyes scrutinised the screen as though it were hiding something from her, that permanent downwards tilt towards her nose, like a river valley. Her eyes, so dark brown that to Ambra they seemed to be black, blazed at the screen in front of her. The computer shone an eerie light over her skin in the darkness. Her skin had looked like she had risen from within the earth, and taken on the colour of its soil, but in the harsh blue she looked cadaver-like and wan.

"I can see you," she said with a voice deep and quiet that still permeated the space between them.

Ambra stepped forward into her inky domain. "Why are the lights off?"

Sahila regarded her for a moment, a strand of hair gliding off her shoulder. "Helps me think." She paused for a beat while a cursor on the screen blinked at her. It was next to the typed word 'inquisition'. "Say, why is this room so much more dismal than the others?" She flicked a hand indicating the worn-out fixtures. The equipment, computers and desks and chairs looked jammed into a room that was too old and tired to make the effort. When the lights were on, the white walls looked grey.

"It's one of the first chambers. The other three around it are too." She waited for some form of acknowledgement, but Sahila's attention didn't leave the screen, so she turned to walk away.

That got her attention. "You mean... the 21st-century mission?"

Although converting from Martian years to Earth years usually required a computer, everyone knew about the 21st century mission. Or year 41. "Oh... no. After then. This was the ship my father landed in. The 21st century mission is far away from the Valley."

History enraptured the woman in the chair. "It's amazing. Each room has its own history. You can feel it."

Ambra didn't confess that she had never thought that much about it and only now, under a stranger's scrutiny, could see that this place was layered with history.

"So the very first mission, It was nearly a hundred years ago now, did you guys scavenge that facility?"

Ambra had to laugh at that. "It's like two thousand kilometres away! No, no one's been there. Besides, what would be the point?"

The value of the goods inside the first-ever Martian facility must be rusted away after a century. That was the lair of horror stories for Martian children.

Sahila's lips twisted into not quite a smile as she muttered, "To find out what happened to all those researchers? The source of many a Martian nightmare, I'm certain."

Ambra's father had joked once that it was mega Martian worms that slithered around in the tunnels that had eaten the first settlers. Six-year-old Ambra had not found that funny and wouldn't go near the greenhouses for months afterwards, while Kauko would dig through the compost to find the wriggling strings and chase her through the colony with them pinched between his fingers. In his excitement he squeezed them to death and they were both told off for wasting valuable resources, for the shedded skins of the worms were full of nutrients to fertilise the soil. What remained a source of repulsion for Ambra had led a life knee-deep in soil for Kauko.

Instead of making it for lunch, Ambra decided to go straight to the airlock to meet Ali. It was thanks to her father that they were having this time one-on-one, she was certain. She decided to start putting her insulating layer on and her suit since he seemed to be a little late.

"Hey, Ambra, didn't see you at the canteen! I got you a wrap. There was a lady and she had all your info and said that you didn't eat sometimes, and you would be the death of her or something like that and that she'd boh-lock me or something if you didn't eat it so here you go yo. Yoosh!" Ali needed no introduction - he sorted that out himself. His own whirlwind of lyrics. He barely needed to take a breath he was so used to spewing out word-waterfalls.

Ambra couldn't help but laugh as she placed her helmet on the floor. She shimmied her arms out of the outdoors suit to grasp the food parcel, suddenly hungry after listening to him speak so fast. She took a munch of non-descript nutrition. "I near-wy weft wid-out you," she said around a morsel.

"What you gonna do that for?" he raised his hands in mock amusement.

"Too swow." She grinned.

He pointed at her teeth and she picked it, pulling off something black. Pepper maybe.

"You vile creature," he grinned. "But seriously," he lowered his voice, his eyes kind. "Are you okay? Just, I know that I'd have to be pretty stinking miserable to skip a meal."

She shrugged. Honestly, his presence was just the remedy she'd needed. It wasn't unlike Martians to make fast opinions of people, and that included fast friends.

People who arrived, having spent six months or so cooped up with four other people on a tiny rocket, also found socialising with another bunch of strangers to be surprisingly easy. Ali bounced with energy, making him seem much younger than his records had said. Especially when those strangers were also starved for novel interactions.

She decided to be honest with him. "My ankle has been twinging again. It hasn't really gone back to normal. Finn said it might not."

"Ah, that explains it. Whenever he examined me, he made me do the coughing thing."

Ambra quirked her head. "He didn't make you do the coughing thing? What a surprise!"

He cackled at that.

"The... coughing thing?"

"Ah, don't worry about it. It's just our little joke. So, you gonna suit me up or what?"

"Yes yes, grab suit number three. It's a bit taller so I reckon it will fit you." She was eager to not be talking about her medical disappointments, none of them related to her health, though that was failing her. "But take the number two helmet, the number three is broken," she warned, remembering her own accident involving the comms unit that got snapped off after her fall. She was surprised to see it still out, maybe it had been fixed, but she'd have to remember to check after the mission.

After they got him into a suit, Ambra clacked his helmet into place. There was a clever arrangement of mirrors so that he could see how she did it and then he affixed Ambra's as well. Fortunately, though not surprisingly for a base with just shy of 300 rooms and 123 people, another Martian, Shinkal, walked past to assess the quality of Ali's work. Not that she didn't trust him, but to step outside in the frigid air based on a rookie's ability to affix a helmet was like signing a suicide pact.

"No faith in me! I'll have you know, that you were my teacher. So, you're basically saying that your own work is shoddy," was his quick, wide-mouthed reply. "That I can't trust you."

"Oh shush. You're so noisy," she muttered as the much more trustworthy Shinkal confirmed that Ali's handiwork was indeed adequate and that yes, Ambra was a wonderful teacher, and the equipment was designed to be straightforward to use anyway because Earthlings can't have simple Martians getting confused.

They stepped into the airlock, the doors puffing shut behind them. There was the magical sound of air being sucked away by some hidden anti-breeze. And then a moment of silence. Aside from the radio in her head, that was.

"You ready, then, Ambra?" he asked, all bright-eyed and eager to go.

It was infectious. "Yeah. You ready to see some dirt?"

"You bet I am! I got my dirt collector, I got my dirt bags, I am drooling to see some dirt."

The outer doors slid aside with a silent reverence that Ambra had desired. Outside, the winds whipped around the antechamber. The buggy sat, a robust presence, charging its battery in its solar dock. She beckoned for Ali to follow her. The buggy had space for four people, but often there were only two who drove in it. Ali clunked his gear into the back space, where there were no designated seats; occupants had to hold on to the hand rails on the front bench. Ali bounded into the driver's seat, reclining like he was born to sit there. He shot Ambra an innocent grin.

With anyone else she might have backed down, but his playful nature gripped her.

"As if I'm going to let you drive."

## CHAPTER 16

**MARS, AUTUMN, 100**

He clambered to the neighbouring seat, grinning. Ambra took her time to detach the charger from the buggy and coil it up to hang it from a hook in its shed. There were a few buggies of various designs. Each time a new vehicle arrived it meant a new wave of test rides and features to explore. The Bell Burnell hadn't brought any new vehicles but a new one would arrive on the next incoming craft: the Halley. She removed the security blocks to stop it from rolling, gave it a cursory wipe-down to loosen the inevitable layer of dust that covered everything, and then strapped herself in before shooting off into the full terror of the Melas Chasma and the canyon beyond.

"So, I'm showing you around. Welcome to Mars, my Earthbound companion."

She chanced a look at him as she created plumes of red dust in their wake. His mouth had already fallen open. A reaction at which she raised a secret eyebrow. The landscape was really nothing to gawk at, although in the presence of visitors it did take on a little extra glow. Each layer in the canyon wall as though it was painted on. Their colony buried to protect them from cosmic radiation and the Bell Burnell still upright in the Valley floor.

They stopped at the Bell Burnell to examine the craft. The novelty of a vertical building had worn off for Ambra after so many rockets had landed, but this was different. She and Ali checked the workings of the airlocks as part of the extensive checklist that needed to be completed before it took off again. Examining the seals and testing the strength of the doors made her see the structure as a complete vessel, not a home waiting to be sliced up and welded back together. The Bell Burnell was a ship not to be tied down to any port.

"What was it like on the ship?" she asked.

"Oh you know, normal stretches of boredom. I actually think Finn was the most suited to it." He sat down.

Ambra kept working to let his thoughts float freely.

"You've seen me, I struggle to focus on sitting down. But Finn was the one who could read a book from start to finish without looking up. It was incredible. I mean, time gets a bit warped when you're out there in between planets."

It made sense why Ambra found Ali so vibrant. His bouncing

personality would have been filtered out in the recruitment process for colonists, but rules could be more relaxed for a visitor.

He was still talking, thankful for the sympathetic ear. "He didn't have any other family, so it kind of feels like we're the last people he had left. Everything gets pressurised in the rocket, like you're all too close together. Even if we try to stay professionals you can get more attached before you even realise it."

They cut their examination of the Bell Burnell short so that Ali could have his first tour of the canyon. In the portion of their canyon, the Melas Chasma, the widest of the Valles Marineris, had a spoon-shaped section, still ten kilometres high, but the gentler slope made it easier to make a path in the valley side. On the fortieth-or-so mission, excavator rovers were sent to build a winding path up the canyon-side that the quad bikes could take. On the way back down, they would take samples, but on the way up, Ambra wanted to be able to take the road without braking.

The buggy crested the hill, Ali gasped. Skirting around the edge of the canyon rim was breathtaking, not just from the sheer grandeur, but a shimmering manmade feature that looked like water. Solar panels, to be precise, which her father, and all the other elder ex-Earthlings, referred to as the 'Martian ocean'. Ambra felt that the name was given in jest but had no way of knowing. They raced round a path that Ambra knew well, and the indentation in the soil proved it.

"This really is spectacular," her guest said.

She shrugged and continued. The buggy drove around the Northern Solar Valley, 'where sunlight pools like the sea', and made their way to a point on the crest where a cylinder, white and just too-large for Ambra's arms to touch if she hugged it, had been dug into the ground.

The buggy slowed with a cough of rusty dust, and she hopped out. She beckoned her 'funny' companion over to the device. It was enormous. Each machine doomed that shipment of crewmen a cramped journey or limited the other resources available on a supplies ship. Ambra felt fairly clued up on the science, the machine was designed to take natural Martian air and try to turn it into something more Earth-like. Friendlier to humankind. There was a catalyst, there was a generator, there were bellows. It was also totally useless for widespread, significant change, and was purely for prototype purposes. The future of this machine was unclear to the likes of Ambra, but apparently, nameless scientists had it all under control. The first one on their tour was special to Ambra. There were others further on their Northern Martian tour that she had helped assemble, but this one had been erected when she was but just born. When her mother had just died too, incidentally.

She'd been given three-and-a-half hours to hold and name Ambra before her uterus collapsed. According to Dr Slim, who had been there to oversee the fourth birth on Mars, it was horrific and there had been nothing he could do, despite trying everything. Earth papers had come forth claiming that this was the tragedy of a doctor who knows everyone in their community - it clouds their judgment, makes them fragile, makes them fallible and susceptible to mistakes. According to the people on the earth, there were steps Dr Slimlindele could have taken to save her. According to these haunting, nameless accusers, her mother could have been saved. But three hours and twenty-seven minutes were all Ambra knew of her genetic mother. Her Martian mothers took over after that.

Her father had mentioned once that it was her mother from whom she received her pale skin from. Everything else was his, her sable eyes, her stiff, dark hair so thick she couldn't catch lice. Whatever lice were. Zhou said that when he looked in her mother's eyes it was as though she had brought the northern lights with her. Ambra had seen quickened videos of green flashes in the sky but was her mother truly in them?

She shook her head in her unmoving helmet. Banish the thought. Work

to do.

"So," she once again beckoned her Earthling companion with the absurd number of names over to the machine she knew by heart. "This is the Charging prototype, not much interest to you I guess, Mr Dirt. But I might as well do a check while I'm here." She opened the panel and powered up the data centre. No point having a working display screen for the 24 hours that no one was looking at it. "So, I look at these twice a week pretty much. Check that everything's peachy. There are nineteen other people on a rota who check them out the rest of the week."

She paused the external monologue to watch as the digital display powered up. Slowly, little digital beacons blinked to life, spewing secrets that she knew the answers to. She grimaced at the display, waiting for it to stabilise. Daring it to misbehave.

"You know, you look a lot like Sahila when you do that," he said.

"What?"

He burst out laughing. "Like you're trying to intimidate the answer out of it, like, it's a machine. It's not scared of you."

She glared at him.

"Oh relax, she's not all that bad, really. Just a bit grumpy."

Ambra glowered at the machine. Had the control panel been sentient, and sensible, it may very well have scarpered.

"Do you want me to show you or not?"

"Brrr. Icy. I-I mean yes please, don't hurt me."

It was a prototype, part of the Green Planet Project, to test different ways to make Mars more comfortable to inhabit. One idea involved electrically charging the poles, probably using a nuclear or solar power source, to create an electric current through the solid core of Mars. Heat would build up and liquify the metal core to create a magnetic field around the planet, protecting it from solar radiation but also creating a sort of pen to prevent the atmosphere leaking into space. She took him through the basic controls on the unit.

"Do you think it will work?" asked Ali. "It looks a bit small."

"This is only a proof of concept, plus I think it's fairly low budget. It won't reach the colony, let alone the planet's centre. But really? The idea of creating a molten ball of magma beneath us makes me really nervous."

Every layer or so, Ambra would stop so that Ali could leap out and sample some rocks. He had a fascinating cylinder contraption - thin and sharp, that cut into the soil and pulled back up a cylinder of dirt that he packaged in airtight plastic wrapping and labelled. "I love using this thing," he confessed.

"Are you going to take that soil back to Earth?"

"Yup, and we're gonna do science on it. See how the soil's changing and whether it's ready for life or not."

As they continued to wind their way down the canyon, back to the facility, another quad bike raced along the canyon floor; a white pearl with a trail of dust behind it. At the next stop, Ali turned off his radio transmitter and signalled to Ambra to do the same.

"Are you really serious? About going to Earth that is."

Ambra nodded eagerly. "Been thinking about it a lot recently actually. It's like a plague in my mind. I think I'm going crazy here."

"We can always ask ground control and see how they feel about it. I mean, we've never had the opportunity to return before, so I guess they'd never thought about bringing Martians to Earth. But there are a good number of you now."

It was unprofessional of him to tease her with this information. It gnawed at her stomach. Desperate to get out, desperate to stretch free and just be different. To do anything else except for being here. To be where the real Earth people were.

"I would just die of excitement if I could actually go," she

breathed.

"Well, that settles it then." It was Ali.

Ambra looked up at her, eyes wide like the two moons of Mars. Ali looked at her with equally wide eyes but filled with confusion not wonder.

"You can't go. We can't have you dying of excitement on the deck."

Ambra's mouth fell open. "I don't mean actually dying! I meant like... " she clawed for the word. "Figuratively."

Ali winced. "I know what you meant. I'm sorry that was a joke, but I can see now it was a really mean one. Please don't throw me off the edge."

## CHAPTER 17

**MARS, AUTUMN, 100**

That evening, she went to see her father in his room. Each bedpod looked largely the same from the outside, aside from subtle design changes made over the years. Some people stuck pictures on the outside but that was an administrative-intensive process. Each Martian had an allowance for personal-use resources and often they were rejected, but it was these trinkets that set each Martian apart. Her father's room had photos of her mother on the walls. Although Ambra didn't look very much like her mother, there were certain facial expressions they both made that Zhou had said gave him the fleeting impression that she still existed in the colony, just as a presence.

He sat before a checkers board and their fingers began a game, the motions automatic. A world hung unseen between them full of all the things Ambra wanted to say but now that they were alone together, she felt that he already knew her thoughts.

"What was China like?" she said instead.

The plastic counter clacked beneath his fingers. "How can I sum up a country? There was beauty, there was suffering, and it was dense with both." In his features was a peculiar type of fragility that sunk into the lines on his face whenever he spoke of Earth. The strain of leaving weighed down even him. "Tell me, daughter, what is Mars like?"

What was Mars to Ambra? A series of well-worn tunnels. Deconstructed rockets that might as well have been built by gods, for she would never know who had held the hammer. A clockwork town. A stripped-down version of survival. A school where the lessons that made sense to her didn't happen in the classrooms.

"It's growing," was all she could manage.

He nodded. "Not the worst answer." He nodded again. "Addresses the progress we've made and the progress to come. Implies we have begun an ecosystem." His fingertips of either hand found each other and rested on the table just touching, as though he was caging a soft idea. "There is a feeling of 'beginning', as though we have not yet reached our potential."

He thought like a diplomat and a new wave of understanding washed over her that he was reasoning how someone promoting the facility would reason. As though he were speaking to an Earthling audience.

When Ambra returned to her bedroom, her sisters were still awake. The bottom bunk on the right was in sleep mode and belonged to Tara, an Earth-born who had come two years ago. The top two were open, with Nosizwe's legs dangling down and Vera sitting cross-legged, her spindly body like a shivering crow atop a perch. Vera was brushing her hair. The handle had been snapped many times and was wrapped in duct tape

"Where have you been?" she asked, examining the teeth of the comb.

"Playing checkers with my father."

Vera sniffed and snapped off one of the teeth, running her finger over the nub of glue that no longer held it together. Ambra ignored her petty destruction, certain from their sharp silence that they had been gossiping about her.

Trying to ignore them, Ambra removed her gravity suit, rubbing the red imprints in her shoulders before changing for bed.

Nosizwe dared to break the tension. "Dr Jukanpoika said he might be able to get me kick-started on getting published for medical research."

It took Ambra a moment to remember that 'Dr Jukanpoika' was Finn, she had been so distracted at Vera rolling her eyes in her self-absorbed drama.

"I could be the first-ever Martian scientist."

"It's trash really," said Vera. "You've already been helping for a year, why have you gone uncredited?"

"That is great news, Nos," said Ambra.

"Well, I'm so glad that *Dr Jukanpoika* thinks you're the *first-ever Martian scientist*." Before she could stop herself, Vera looked at Ambra and said, "And you're in Ali's pocket, like his mascot. What's left for me? Which Earthling am I going to pry open and lap up to?" Her face flushed red, like the stains of blood from feasting on the Earthling's hearts. Her body had drawn itself in to cover her heart, like she was sitting inside the cracked-open ribcage. Her ferocity frightened Ambra, but she wasn't done. "You know, someone else might have their eye on that return ship." Ignoring the ladder built into the wall, she slid onto the floor to stand Ambra down.

"Stop it," said Nosizwe. "Stop."

"You're all over them. Not everyone has a father who can click their fingers and get their daughter a free pass to Earth." Vera was controlling her movements with a precision that belied her frustration, but her words were filled with a deeper poison that had clearly been festering.

"Vera..."

"And Nos told me about your secret conversation with the Earth doctor. Sneaking around in plain sight."

But Ambra had had enough and spat, "Well no one has said I'm going to Earth yet so maybe you're just stupid."

"Yet? What do mean 'yet'? Has your father been planning this for you?"

When Ambra didn't reply, Vera hit her palm against the side of the pod and turned around to stand her off. "It's not stupid if we're treated unfairly!" Any mask she had tried to hold was melting away. And her words got louder as Ambra slid open her bed in a provoking gesture.

"What the heck is going on out there?" Tara slid out of her pod, her plait fuzzy from tossing on the sheets. "You guys know I'm trying to sleep."

"Sorry, Tara."

"Yeah, we're sorry," chimed in Vera, calmer but still with a hint of petulance.

When Tara had first arrived, she too had seemed as ethereal as Ali and Sahila and Finn. The newcomers seemed to glow, their skin luminous with memories of the sun. After a year or two, they looked dull and sickly. She slept in a band T-shirt, a girl group called 'Culture Wreck' that had been the week-long fascination of the Martian girls involving a lot of screaming and loud music and a new drafting of strictly enforced music-volume protocols. This was when Vera declared she wanted an eyebrow piercing and

Ambra went one step further and cut herself a fringe.

After two years sleeping in their bottom-right bunk, Tara looked worn out. "Everyone warned me about sharing with the three Martian girls." She closed her eyes but kept her pod open.

Ready to sleep, Ambra pinched the fabric of her own band T-shirt, soft and chapped after a year of nightly use. Inspired by Tara, the Martian girls spent weeks of agonising about what personal item they would have shipped to them for they got a set weight allowance every year for a personal treat. Each of the Martian sisters chose a band T-shirt as their personal item.

"Look," interjected Vera, her expression one of a false diplomat, "I'll be fine if they make the correct decision about who goes to Earth, but Ambra always gets laced with the best stuff because her dad's..."

"No one knows who's going to Earth! So whatever problem you have with me is in your head," Ambra said, before lying in her bed and pulling it into the wall, not caring for the frustrations of others. Part of her felt smug, the rich feeling feeding an ugly part of her, but what hope did Vera have with a mother who maintained rovers and a father who analysed plants? Her father had warned her that the prize waited for her high above the grey clouds of teenage politics.

Soft murmurs surrounded the cylinder, which felt like a coffin tonight, though some of those were the women's voices still awake in the bedroom, mixed with the greater hum of the colony. Skin-deep vibrations from running water pipes, or the breath of ventilation, made her feel as though she lay in the throat of the building, that it would sing to her under the moons and stars.

## CHAPTER 18

**MARS, AUTUMN, 100**

The Earthling smirked at them both, rubbing her hands on her jumpsuit. Ambra and Zhou shared a meaningful, silent conversation before she stood up.

"All right, baby Martian, let's see what you got to show me."

They walked to the workshop in silence. Each time Ambra wanted to start small talk, she couldn't move her mouth. Her father always told her of the merits of working well with colleagues, even if there was animosity between them. It was much harder to put into practice if you wanted a favour. Fortunately, once she was back in the workshop, every problem slotted neatly into a schematic format.

"Ugh, this thing's back with us again," she sighed, pulling a personal hard drive towards her. "And once again, it's my job to bring it back from the dead."

Sahila ran a bronze finger over the chipped, white paint on the lid. It had been hand-painted. "Prometheus?"

She snorted. "Yeah, it was one of a set of twelve. And someone had a sense of humour." At Sahila's raised eyebrow, she continued, "Oh, it was Ivan, from the III mission. Technician. Programming. Also really likes his mythology. I think he learns dead languages in his spare time..."

"You lot have some introverted habits."

"We're not heroes, Sahila."

"And watching your dad and the old Martians play chess. Yoosh, I didn't even know anyone knew how to play that. I mean, he tried to teach me, but..."

"I guess we have a bit more time."

She unscrewed the lid while Sahila watched with a perplexed intensity. She mentioned that the casing that held the cable was bent out of shape when someone sat on it. Since then, the hardware had never been quite the same. There was something ironic about protecting this kit from the fires of a rocket launch, the vacuum of space and an eternity in point three gees, yet it was still not safe from the rear-end of man.

Sahila was curious about the different parts and laughed every time Ambra named them. Apparently, they all looked like Stone Age relics.

"That thing only carries 300 terabytes! It's enormous!" Ambra explained that if it was any smaller, she wouldn't be able to fix it. The word 'waste' had no meaning.

"You're really good at that," said Sahila.

"You don't need to sound surprised. It's my job," she laughed, filling in a 3D print-ink log while the machine whirred away.

But the Earthling still looked impressed. "I couldn't do that."

"I expect you can do lots of things that I can't."

She nodded abstractedly. "So, what is that piece there?"

And that's how they continued. Ambra even 'allowed' Sahila to screw in the reprinted and filed hard drive box. She nodded at her work, looking chuffed.

"Now you have contributed to Martian wellbeing, congratulations!" said Ambra, popping the completed box in the 'completed' station. "Your contribution will be cherished by 123 people. Oh dammit. I forgot to bring that helmet in for repairs." She picked up their finished hard drive again and turned to her enthusiastic helper. "I'll have to go and get it; I broke the communication device on a mission. I'll grab it after I return this."

The owner of the mythologically named hard drive was Ivan, who they found tapping away at a workstation. Little letters and numbers popped up as he tapped each key. He was hunched forwards, over the keyboard, squinting at the code, his tongue rubbing from side to side between his teeth; a sign that he was deep in concentration. Ambra tried to place the hard drive down next to him as quietly as possible, but he jumped, startled from his reverie at the soft clunk it made as it was placed on the table.

"Oh, Ambra, hey, who's this?"

"It's Sahila - oh, you meant the hard drive."

He was gently caressing the chipped paint that spelt out 'Prometheus'. "Back from the dead, again, hey? Ready for the next job?" He plugged it into the USB-M, the universal Martian point that covered data transfer, power charging, and everything else on every device on the facility. It was large and unsightly, but easy to fix and quick to print.

Sahila glanced at Ambra, eyebrows raised in amusement, but she avoided her for fear of laughing. "What are you writing, Ivan?"

"I noticed that whenever I want a glass of juice, I need to walk to the dispenser which takes me twenty seconds and then press the button but I can programme the machine. Did you know that the juice dispenser runs LaTeX?"

She shook her head, pursing her lips trying to stifle her laughter while Sahila did a much worse job of containing her amusement. She had turned around to feign interest in the information posters on the wall and the charging wall filled with identical batteries in various states of charge.

"Well, I have written a code that will automatically start the juice stream in twenty-two seconds, streamlining my time away from the computer."

"Do you like it here, Ivan?" asked Sahila, who had now recovered her usual sarcastic drawl.

"What's not to like?" He asked back, now noticing her for the first time with a strange intensity. "Here, watch." He pressed the enter key, then grabbed his cup and strode to the kitchens, the girls trotting behind him. He placed the beaker down on the counter and a little spurt of juice spluttered into the cup.

"Incredible," deadpanned Sahila.

Ambra elbowed her, causing her to roll her eyes but with a smile. The man downed his juice right there, then placed the cup under the nozzle again which spurted a small amount of water into the vessel. He swirled it around and tipped it into the drain. "As you can see, it also cleans the cup, so I can return to work." Before they could respond he strode off to sit at his computer, the empty cup placed under a sign that said 'No Liquids'.

Sahila tapped the drinks machine that had been custom built into the

wall, so that it swung out to be refilled; one of Ivan's requests that Alpha Mars had honoured for his stay here, in part because the media storm around 'Mr Juice' paid for the project in its entirety.

They were interrupted, as many conversations are, by the greetings of a woman with a wild tangle of black curls, though streaks were going grey, wrapped in her khadi blanket. It was woven by her own hands on Earth; Alpha Mars had been accommodating in offering to send wool to Mars, but she refused, citing authenticity. Plus, she didn't want them to be shipped back in a black-market Martian-blanket trade, especially where profits meant nothing to her. Isra Chiara, Mission II. Council member. Age. "Sahila, my dear," she nodded, "I would like to invite you to dine with me."

If she was caught off guard, she hid it well through a veil of training. "Yes, thank you, Isra. I assured Ambra here that I would assist her in her next maintenance quest."

"Oh, it's fine, please go and enjoy your food," said Ambra, not wanting to be the reason that the Earthling guest was removed from council member company.

"Your duties are urgent, yes?" asked Sahila, eyes darting between them.

"Umm-" It actually was quite urgent, but she didn't want anyone, especially two people making a decision on the Earth-bound Martian, to realise she'd made a mistake. "I wouldn't want to impose."

"Not at all, my dear, let us all go and eat together."

## CHAPTER 19

**MARS, SUMMER, 100**

Instead of an announcement in public, like the first time her father had mentioned a Martian would travel to Earth, Ambra was invited to her father's bedroom. When she arrived, it was filled with the four council members as well as the three Earthling visitors. Although a small part of her conscience whispered that it might be foolish still to doubt their intentions, Ambra was filled with delight at the conclusion that it was she who had been chosen to go.

Her father beamed, but with a sadness in his eyes, and waited only for her to close the door to tell her that they had chosen her to go to Earth. Finally, all her doubts were washed away, and she thanked them, looking at each of the faces that had deemed her worthy of the honour. Ali congratulated her with a pat on the back and Finn shook her hand and said that he would see to her healthcare personally when they reached Earth. Even Sahila smirked and said she thought Ambra would make a good addition to their team with her engineering instinct.

The only concern was Hoshi who was severe by nature and only nodded in her direction before excusing herself. Her father said that they would announce the results that evening and would trust Ambra to show discretion meanwhile, though she stayed in his room until then, unable to comprehend the task ahead let alone act like everything was normal.

As the moment for the announcement drew nearer, Ambra felt a panic seize her by the throat. Would this be like a public execution? She was as good as dying to the Martians, who were unlikely to treat her with overwhelming support, not while they were patching up their own disappointment. Vera's pointed face, pinched with jealousy, appeared in her mind. Ambra needed to be a vision of confidence with no crack of doubt.

When the announcement was made, Vera wasn't even present. It seemed that news of Ambra's selection had spread as a matter of deduction through the whispers of the colony, some Martians even claiming that they had predicted it. Ambra tried to keep her chin high but looked to Kauko for support. When he couldn't meet her gaze, she settled for looking at the opposite wall and ignoring the severance lashing over her like a piece of stretched elastic that had been cut.

There wasn't much time to wallow, for which she was grateful, since she was needed for drills and training for the flight to Earth. More time was spent with the Earthlings and less with the Martians.

She ducked out of the bedroom quickly in the morning and occupied much of her free time with running or weights training for the higher gravity. Ivan also demanded much of her time helping train up a new engineer, using her knowledge that would always be at least a thirty-minute delay away once she was off-planet.

There were those Martians who had come from Earth who patted her on the back at the dinner table and gave her recommendations on where to go.

## CHAPTER 20

**MARS, SUMMER, 101**

Ambra grinned as she ripped the sheets from her bed. She couldn't help it. The whole situation was like a dream. She supposed that now it *used* to be her bed. Now it could be someone else's. As the sheet billowed around her, it also scattered memories. It was foolish really; it wasn't really her sheet. It could have been randomly distributed to anyone in the colony. But every fortnight each sheet was rinsed off the previous owner and bestowed unto a new backside to be slept on. Just this wash was going to remove her from this stagnant life. Bundling the linen in a heap on the floor, she scooted round the inside of the pod to make any last-minute arrangements of her belongings. She idly wondered if her pod was in a coveted location. Sure, it was near a noisy generator, but it was close to the mechanic's workshop. Her roommates were quiet. Her gaze landed on an old plate. Oops, she looked at it sheepishly. She'd need to wash that up and sneak it back to the kitchens. They weren't supposed to go walkabout.

"Hey beautiful girl," Kauko said like a breeze.

Kauko shook his head. She looked at his face a fraction of a second too long. She ripped the last sheet off the mattress. Thoughts turning away from Martians and towards Earthlings.

"I'm sorry, I still don't understand." He stood. Maybe he needed to shake his head again to try and establish those lost connections. "Why do you look so excited?"

"Oh, Kauko." She bundled all the bedding into a heap on the floor. Ready to be cleansed of her scent and skin cells. The plastic mattress gleamed in the artificial light. Just to imagine how real sunlight would look gleaming off anything all the time was making her mouth water. The dismay was still firmly etched in Kauko's expression. "I guess this is goodbye."

"Mmh."

Kauko still hadn't moved. Arms hanging loosely like that time when one of the Martians had returned to the base with a broken arm. Taken a corner too fast on the dune buggy. Normally one would be unharmed, but he'd hit a hidden rock.

"So that's it?"

Ambra sat on the plastic and patted the faded sheet, indicating that Kauko should take a seat. He walked over, in his own daze.

"I can't think." The thought vanished along with the Martian winds blowing outside. "You won't be here tomorrow?"

"Or the day after."

He shook his head. In a world where you knew pretty much all 180 people, it was like having an organ removed when one of them was gone. "It's like you're dead." No one had ever come to Mars and left alive: a case such as the one Kauko was battling with was equal to Ambra dying. Except that she'd still be alive.

"Hey." There was a pause in time, just enough for a shuddering breath, were Ambra being insensitive enough to listen out for one. "There's no rush to get out of here." Kauko tried his hand with a carefree smile. "You've been waiting all your life. You can wait another few minutes."

Of course, Martians had died in the past. For a history of triumph in the face of treachery glistened with sorrow and hardship. Martians who ceased to be were laid to rest in the orchard; immortalised in the soil, and reborn in fruit that sustained the colony. A concept that made the Earth-bound humans contort their mouths, but one that a Martian could be at peace with. It was tranquil to sit and reminisce amongst old friends in the orchard. There would be no tree for Ambra, however, not if she went to Earth.

Kauko stood up to leave but couldn't quite make it to the door. Hesitatingly, he turned around and picked up Ambra's bedding. "Guess I'll give you a helping hand one last time, eh?" he said, not looking at her.

"You don't have to."

"Just pretend like I'll see you tomorrow."

Ambra nodded. They walked to the laundry bin, side by side. Veins of guilt unfolded through her body. Her mouth salivated as though she were nauseous. Just one more day. Just one more day! Would Kauko be any happier if she ripped the cord between them tomorrow, not today? The sensation of vomit at the back of her throat persisted.

The 'laundry room' was more of a corner of a larger room. A nook specifically designated for dirty Martian clothes, with a wheelie bin large enough to fit two grown Martians when they sat huddled together, as Ambra and Kauko had discovered one day. Grinning, nose tips barely touching, surrounded by greying sheets and giggles. He shoved her sheets in the rueful bin. His usually tender hands gripped the edges of the bin, then her wrist. He pulled her into the dark nook behind the bin. They huddled there together again. Nose tips just a breath apart.

Somehow the space between them was starting to feel as wide as the galaxy.

"I thought we'd get married," he said.

"Probably."

Ambra looked at her feet. Not wanting to comment.

"I mean, not tomorrow or next week, but one day."

She couldn't drag her eyes up to meet his. There were cracks in his steady voice and she didn't want to see him when he wasn't at his most composed.

"I love you, beautiful Ambra."

She nodded. "I love you too, Kauko."

He drew in a breath through his nostrils. Then shook his head and stood up and walked away, unwilling to drag out the happiest moments that could have been.

She walked back to her empty pod. It looked how she felt right now. Empty of compassion. Clinical. Ready to be filled with a new life, a new adventure.

"I remember when you were just a baby," he said, holding her one last time. "I had to squeeze you into that little gravity suit every day and every day you screamed. Like pushing a sausage into its skin." He

kissed her forehead, composing himself. "It hurt me then like it hurts me now. I can only apologise."

"Father, stop." If she let him continue, she wouldn't be able to drive to the launch site. He held her once again, then stepped back, placing his hands behind his back and nodded.

"Good luck."

She could see a few ribbons of hair out of the corner of her eye. "Never forget to tie up your hair!" Kauko cautioned, his voice echoing in her memory. Reverberating around her helmet. She flicked her head a little to the left to try and dislodge the strands, a move that was successful, except that now more hair was bothering her from the right. "Seriously, the hairband." She puffed, then flicked up her chin. Strands of hair flicked back into her helmet. A few rogue strands tickled her chin, but she ignored them. Her vision was slightly warped with the helmet now placed over her head. Designed to extend vision a little past the normal 120 degrees, since turning one's head in the suit was that cumbersome. Clips sealed her from the world. Everything now a little muted. Someone clapped her padded shoulder once. Twice. Gripped. A small squeeze. A cold front of fuzz washed the space behind her eye sockets. She sucked in a deep breath, determined not to cry. Her father let go of her shoulder and patted her into the airlock. Like the vacuum was pulling her in. There was a feeling of weakness in the space between her neck and her shoulders. A faltering. Each step felt like crossing the desert somehow. The airlock slid back, as she was side by side with her new comrades. These three strangers who already had an established dynamic.

Her father smiled at her for the last time, then there was just a white panel. And a familiar rattling as the airlock gasped up the oxygen in the room, lapping it hungrily. Now a gentle puff as it was filled with Martian atmosphere. Red dust crept into the lock, like a frustrated plague, as the outside door slide aside. A fitting curtain call, with a backdrop that couldn't be beat.

They clambered onto the buggies, Ambra driving, with Sahila in the back. Ali and Finn on the other buggy. Ali jettisoned away almost immediately.

"Sure you don't need me to drive?"

Ambra catapulted their buggy into Ali's dust. She wasn't starting her new life being beaten by an Earthling. The rocket grew into the sky as they passed the cavern wall separating the colony and the landing pad. There was a pressure on the front of her gloves from the wind, but her face was unhindered, her helmet a shield.

She looked at the twin moons from the surface one last time. Panic and dread. Her wide eyes shone with their legacy. Panic's eye-shaped mass piercing down at her. Terror a dust mote in the background. It could have been mistaken for a star. But its gaze, too, lingered, lopsided and demented. Stars flecked the melancholy dusk that turned the red planet blue and purple moments before darkness saturated their world. And with it, night's cold breath. The dying gasp signalling her last blue sunset. And the last blue wash that flooded in with it.

Ali and Finn were enjoying their final lightweight bounds as they jumped towards the spaceship. Buggies left by the Valley wall. Sahila felt no such compulsion. The joy of leaping didn't seep into her legs. Ambra's feet were feeling heavy. As though each step tore the thick roots that tied her to the planet. She was to discover how much of her identity depended on it. Each step from the boys kicked up dust. Youth in each bound. Jovial. Childlike. What was the fascination? The compulsion? To leap just so?

"Ah, I'm going to miss this!" one of them screeched.

"To be superhuman for one more day." One of the white, pillowy figures turned in the air. An effortless forward roll.

Ambra's heart thumped with each step. Drawn out to minute-long intervals. Somehow.

Fear and panic. Terror and dread.

A roaring in her ears. Dust everywhere. Creating a veil, almost sensual. A cloud of flour but biting. The white, smooth space shuttle an eyesore amongst the haze.

She stepped on.

Gripping sleek handrails, the type that were dismembered by Martiankind, she climbed to what was to be her new home for the next six months. All infrastructure and railings were reused and repurposed. Nothing wasted. Would she get the most use out of Earth? Or Earth of her? She thwarted gravity as she raised her body up each step. A tight grip in her hands. Solid. Fear. Panic.

She climbed on.

Zhou had understood. Kauko had had a hard time accepting Ambra's desires. His shaking head and her chin raised to witness its scorn. Or not scorn. Ah, why hadn't she kissed him?

She entered the pod and although it was a new home, it was the same as the one she had left, but its body was whole. It took her breath away. Nothing quite as holy as the whole creature. How could anyone who gazed upon it ever rip it to shreds? Why not commandeer it and leave?

Sahila beckoned her to a seat. A rocking motion. Two fingers waving towards a chair. Ambra's body drifted towards it before her mind caught on.

She might have said something. There was a deep sigh, then hands chained her to the chair. Her contracting stomach seemed to pull her ribcage towards her groin with each breath. Rocking up and down.

Who knows how long. She had plenty of time to focus on her breathing and the tasks ahead.

Then, the whole rocket shook and rumbled. She blinked back confusion and before she could realise they had left the surface, the rocket had ceased its shaking but had started wailing as the rocket whined through the atmosphere but getting quieter with each moment. Although she couldn't see with closed eyes, she knew Mars was under her, getting further away. An invisible force crushed her chest into the back of the seat and as she blinked, tears formed to drops in her eyes.

Then, all the pressure lifted. She drifted around in her straps, bumping between them and the chair until she released herself. She had been educated on the effects of zero gravity, but she felt herself scrambling in the air for purchase, when Sahila forced a bag in her hand and she promptly raised it to her mouth and retched.

She advised Ambra to strap herself somewhere and avoid moving her head, although staying still and contemplating the first steps of her voyage through space was the least sensible thing she thought of doing. There was a round window that offered a peek at the planet they'd left behind. It was almost too terrible to look at directly, like a glowing, red eye in the blackness. There was nothing delicate or gentle about the harsh outline, no smudged relief to its glare or hazy halo. She convinced herself she was thankful to be soaring away from it, though she was restrained to the wall and even looking left or right made her nauseous.

## CHAPTER 21

**MARS, SUMMER, 101**

The spaceship itself was nothing special to Ambra. The Martian colony was built from the salvaged, butchered skeleton of every spaceship that had ever touched the planet. This ship had been built no differently, so other than the novelty of having upper-floors and down-floors, and ladders connecting them between little round holes cut out near the edge that one could peer through, all the way to the other end of the spacecraft. "Down the rabbit hole," Sahila had said, Martian-red hair whipping as she did so. Ambra hadn't understood what a rabbit hole was, so just left it as a curiosity.

Her cot was new, though. Every bedroom on Mars, except for a few for distinguished personnel like the council members and new parents, had four beds arranged like the four spots on a die. And there was that much-needed, much-craved privacy in each sliding bed.

This shuttle had no such privacy. There were four beds, but they seemed to be just shelves suspended along the wall. The sheet strung taut against the mattress, not giving away one crease or wrinkle to suggest it had ever once been Morten's. She was relieved. It was a little haunting to share a bed with the memories of the dead. Not that everything on Mars hadn't been used by- no. No point thinking of that now. Not anymore. During the waking hours (Ambra hesitated to say 'day', for how could it be day when you could always see the sun?) the beds were folded neatly up to the ceiling to make more space. As cramped as the Martian passages had been, it was an expansive wasteland compared to the ship. Just four segments. Just four. There had been at least 300 individual pods on Mars. One for piloting and communication, one for recycling and power, one for recreational use and one for the blanket term, health.

Ambra had an intense training scheme, as did the others, since their bodies would also start to weaken in the reduced gravity. Training was something that she took very seriously. In the meantime, she drank a lot of protein and did a lot of squats. Ali loved to remind her that the glutes were the largest muscle in the body.

The main point that she was uncertain about was phoning home. They were still close enough that the delay between sent and received messages was largely unnoticeable. Sahila recommended that she just avoid listening to their voices at all since it would distract her from the task at hand, but Sahila also might have known that Ambra and Kauko were still united in

their quest to find out what she had been doing in the colony.

Phoning her father once though proved Sahila's theory to the last teardrop. Just hearing his voice was enough to make her regret her desire to go to Earth and he spent the next thirty minutes reminding her of the spirit of adventure and that change would help her grow. He sent her stories of great Earth explorers who sometimes didn't know if they were going back home or not, sometimes in wooden boats or slicing their way through the jungle. The whole experience left her feeling alone and foolish for leaving the one place where she had a purpose and every factor was known. Only she, stupid and naive, would want to leave a perfect utopia.

To raise her spirits, Sahila showed Ambra something to delight the senses. Their pilot, Ali, called Ambra to the main cockpit and smiled a rare, genuine smile. There was almost pity in Sahila's eyes.

"What is it?"

She just stood up and offered Ambra her seat. The Martian sat down and looked at the monitor. Her heart inflated in her chest. "Oh... is that?"

"It's live," Sahila confirmed.

"Earth..."

"Pale blue dot." Sahila laughed, "Sorry, it's a bit anticlimactic, but I thought you'd want the opportunity to see it from space for the first time."

It did look a bit anticlimactic, but somehow it still filled her with wonder. Earth was visible on the surface of the red planet, but it looked like a bright star; its glow was much sweeter than that of Mars. The planet's welcoming shine was hinting that the creme of civilisation scurried about on the surface.

"It's what you've been dreaming of your whole life, kiddo. And it's about..." She held up a finger and a thumb, squinting through the gap in a mockery of the grandeur of a planet, "three millimetres big at the moment?"

Ambra wasn't quite sure whether Sahila was mocking her wonder. But she opted to ignore it. She sat there looking at it. A world of thoughts entered her mind alongside this world in front of her. Was she feeling a little scared now?

"You want me to go?"

Ambra didn't look round. "I have seen it before. You can see it on Mars..." Sahila smiled as Ambra started to get up,

"It's all right Martian girl, I've got some maintenance checks to do anyway. Enjoy your first glimpse of Earth." Sahila raced up the ladder. Ambra was envious of her ease of climbing in the increased gravity. They were only at 63% and ladders were beginning to give Ambra chills. She looked back at the screen.

In fact, seeing the planet now made her realise that perhaps she was completely unprepared for the whole jaunt. She decided to go back to the training room for some back strengthening. Her back had been sore a lot up here. Ali said it was because her spine was aligning itself to cope with the extra gravity. She would likely have less space between each vertebra. Ambra wondered if her skin would start to sag as her bones got smaller. Hopefully, she could rely on its stretchiness.

But now there was a new object to occupy her every day. Seeing how much bigger Earth looked. "I just can't believe it's so blue!"

"You can barely see it! It could be a dead pixel on the screen!" exclaimed Ali.

"Oh, shush. It's like the size of a pea."

"How do you know what a pea is?"

Ambra looked over at him, offended. "We have peas on Mars." She grimaced. "It's not like a primitive colony, we have electricity you know. We've moved past banging rocks together."

"Well, what other freaky vegetables you got?"

"Uh... well, we have carrots, spinach, leeks, collard... anything that can handle being in sub-zero temperatures, really." Ambra had admittedly never tried peas before. They were grown in the experimental garden, which was warmer, and only a few people could eat what came from there. The hardier stuff was grown in glass domes which had less thermal protection because they needed to be spacious and expansive. "Mache, chard and kale..." she kept thinking about what she'd had.

"Are you in for a treat when we get to Earth!"

While Ambra had read some literature about food, it was difficult to relate to. Food had always been seen as a necessity and was rarely ever exciting or consumed at leisure. A new shipment of food would bring a new treat on occasion, but the emphasis was on nutrition. Your weight and metabolism seemed to come into food portion sizes quite a lot. But that was always based on information that the colony had on each Martian.

"Does Earth have a metabolism database?" Ambra had wondered about this a great deal. "I've never been able to figure it out, none of the eateries on Earth websites ever advertise having one."

"A what now?" asked Ali.

"Uh... I guess that's a no then." She tugged her lip with her teeth. "But then how do they serve your food correctly?"

"On a... plate? Is this a trick question?" Ali still sounded confused. "Is there something I'm missing here?"

"On Mars, the metabase has everyone's details so that you can be given your perfect amount of food." Some people also referred to it as the metabolist. "It keeps us healthy. And stops us getting fat."

"You ever seen a fat person before?"

She shook her head. "Not in the flesh. Just on the ethernet." Her eyes were vacant as she slotted some pieces together. "I guess you don't have a metabase then, otherwise you wouldn't get fatness either."

"I guess..." Ali still seemed a little confused. "So, wait, do you ever get to decide what you get to eat?"

Ambra looked over at him. "Uh, no, but that's not a problem. Well, actually yes in some ways. If you want to eat more, you can opt to do more strenuous exercises." She crossed her legs. "I was a mechanic, so that involved going outside quite a lot and it was cold even though there's insulation. It was also fairly strenuous and involved manual labour, so I got quite a lot to eat.

"My friend Kauko..." Kauko. Her thoughts hadn't drifted to him for a little while, what with the spaceship, and the Earth. She'd probably never see him again. He had always needed plenty of food because he did a lot of farming. She glanced over at the pale blue dot. Now that she was so close, she realised that everything she knew was receding from her. Ali was interested in Mars, the things she knew. The only thing she knew. "I don't even know how big an orange is!" she exclaimed suddenly.

Ali jumped back. "You're going to have to run through some things again, I think you just had a conversation in your brain." His cheeks were pushed out as he tried not to convey concern.

Ambra looked over at him, desperation drawn on her face, "Why am I here? No one cares about my Earth knowledge, they only care about my Martian knowledge." She stood up and brought her hands to her face. Looking around. "I want to get far away from Mars." She found there was nowhere to go and sat down again. "But everyone's going to want me to go back."

"No, kiddo."

"I meant in my head!" She spat.

"Ah." Ali rocked a little, then scratched his head. "Tricky one, that."

She looked at him in dismay. "What should I do?"

Ali shrugged. "Embrace it. You've seen what everyone's calling you on the ethernet. You are 'the first Martian'. Everyone's going to want to know about you. And that includes the strange life you lead on the colony that Earth created. On another freakin' planet!"

"We created it..."

He looked confused.

"See, you still think that you can take all the credit, but none of you put the pods together. You didn't dig them into the ground or fix them when they were broken!"

Ali nodded. "But you're all Earth-descendants. Earth still takes credit, even if you did all the hard work."

Ambra pouted. She was struggling to connect with her inner Earthling. Somehow, she was still Martian. She slid down onto the floor, like a melting ice cream. "I don't want to talk about Mars."

"And that's okay, but once we're on the surface you'd better start getting chatty."

Ambra sighed.

"I thought you were being briefed on what you need to do when you get to the surface anyway. What are all those documents you keep being sent?"

"Don't know. Haven't read them," Ambra sulked. "I stopped looking at my emails after I phoned my father. I started reading one, but it scared me and I didn't read any more of them. There are too many instructions and I don't understand everything." She was talking to the floor now, curling up. "I don't understand and it's like my brain's all busy."

Ali took a deep breath. "Hey, chin up." Ambra did not lift her chin up. She stayed staring at the floor. "We'll do it together, okay?"

Ambra paused, then nodded against the floor. "But I'm not reading anything." It sounded a little too stubborn, too much like a tantrum, so she quickly added "yet".

"That's okay, you just figure out how to cope with heading to a new, strange place and I'll start to figure out what you're going to say when you get there." He scratched her affectionately on the head before heading over to the terminal. "Where are these files, anyway?"

Ambra mumbled instructions into the floor. Ali whistled when he saw how many messages she had received. "Uh, we'd better start from the first message then, I guess." He scanned it. There was a formal, welcoming message which was stuffy and impersonal. Ali glared at the text on the screen, looking like he was discovering his inner-Sahila. "Are they employing idiots at the space agency? Even I'm not totally sure what 'elucidate' means. Martian-friendly messages, people. Martian-friendly! Whoever oversaw this communications mission was clearly not the best person for the job. You will be expected to speak reverently and fondly of the colony, while avoiding germane discussion... What does that even mean?"

He read some later emails, one of them being a landing schedule with a timetable that included her rehabilitation and orientation to the planet. After that was an exhausting-looking schedule at the councils that had requested her presence. It looked like she was meant to speak and answer questions. Maybe even to crowds. "It took a lot of training to get me up to speed on these public forums. We'll just take it one fact at a time."

**CHAPTER 22**  
**EARTH, SUMMER, 2140**

The door was opening from the shuttle. There was a deafening roar in Ambra's ears. She wondered if this is what hell sounded like. The shuttle had stopped and Ambra was nearly limp in her seat with excitement, or maybe she was feeling true gravity again. She could only accept the crush that pressed her into the chair, she couldn't even look at anyone else. It hurt too much. She couldn't see Ali since her seat was in front of him, but the clinking sounds of a safety harness being unbuckled were unmistakable, even over the roar of the cooling engines.

Ali tried to stand up but wobbled and collapsed back into his chair. "Wow, and there I thought we were training enough," he laughed, though it was breathless.

Concentrating on him took her mind off her vibrating body and her uncertain stomach. The beauty of the suit was really in the change in pressure. Going from the false atmosphere in the rocket to 'true' Earth pressure could be a shock to the system and the suit alleviated the gradient. However, Ali also mentioned that the environment technology inside the rocket's hull was now so sophisticated that there was barely any difference at all. He had insisted that Ambra wear the suit though.

"Hey, Martian, any pressure difference is new to you." He tossed her helmet which she caught with two hands with a satisfying echoing clunk. "Besides, ground control would skin me if they'd heard I'd risked the first Martian-on-Earth's life by neglecting my suit."

Ambra was certainly grateful for it now, since it was hiding her exhausted and desperate face. The gravity, the newness, the unknown, the pressure, the exhilaration and the exhaustion were tightening her chest and making it difficult to breathe. She thought she could ride out the momentary lapse in composure until she was safe in her bedpod again.

Ali ran over at the sound of her gasping for air. "Get the door open, she can't breathe or something!" He was unbuckling her restraints and unclipping her suit, wobbling himself and leaning against the back of her chair.

Ambra was vaguely aware that he was there. She was also thinking about the bed awaiting her. It was definitely not the bedpod she'd had for the last 10 Martian years. Sitting cooped up in their little rocket had felt just fine, and in fact not so different from home.

"Is she having an asthma attack?" Sahila had clearly neglected protocol as Ambra's gasps echoed around the cabin. Somehow all the Martian could think was 'how embarrassing' and then, how big and heavy her tongue felt.

Finn was nowhere to be seen within Ambra's field of vision. How odd that a doctor vanishes when I can't breathe. However, she could hear him shouting over the sounds of rushing air and a sliding door. She could feel wind racing over her face, taunting her breathlessness. She could also feel pressure on her hand, which now didn't have a glove on it.

People were racing into the cabin. Now they were fuzzy. They were getting closer to Ambra. Now they were forcing her mouth open and now something wet was sprayed into her throat.

"Just breathe for me gently, that's a good girl."

Only now had Ambra reacted to the invasion of personal space. She began to twist in her chair, now unrestrained, and cry for a release, though the voice in her ears was loud.

She snapped her hand away from the pressure and Ali yelped, "Ambra, stop! They're doctors, they're helping you!"

Trying to run proved useless with five other people there to restrain her. She lay pinned down, panting. Oh, wait, panting. Breathing again. Maybe they were helping. She took a long, deep breath of cool air and relaxed. Everyone seemed to be wired.

"I feel better."

A collective sigh.

"Thank goodness for that,"

Ambra scrunched her eyes up, trying to block everyone

out. They were noisy. Eventually, she moved to get up.

The doctors moved over to her. "You must be carried out."

"Don't be ridiculous-" Ambra exclaimed as she swayed and fell back on the seat. "Oh..."

"The stress and the gravity." One of the humans dressed all in white, a woman, knelt and began speaking a little more softly. "It's just a precaution."

Ambra nodded and let herself be carried outside on a stretcher.

When they placed her on the stretcher, she felt that uncomfortable gnawing, like she was going to be sick and however she shifted or twisted, she couldn't escape it. Her eyeballs sank into her skull and closing her eyelids was a chore, as was opening them. The weight of her lips was so surprising that she forgot to moan. She was carried by two people. Desirous to scratch, but unable to move her arms.

Pinned to the stretcher, they took those first steps out of the rocket, her face locked skyward. A perfect sheet of blue, the bluest blue she had ever seen, making her eyes water and teardrops, heavy as mercury, formed in her eyes. She wanted to keep her eyes open, but everything shone like they were new wavelengths she'd never seen before, the Sun an old friend that she realised she had never known.

**CHAPTER 23**  
**EARTH, SUMMER, 2140**

Finn had suggested that they were interested in seeing whether she could restore some of her strength naturally in Earth's gravity, using physio, but conceded that it would be quite painful. He hadn't, however, prepared her for the humiliation. She could barely lift herself from her bed, let alone make it to the bathroom. The walls and windows were all so large that in her dreams they seemed to slip away from her. There were no furnishings, no clutter like the tools that slotted into the walls and rafters of the Martian base like a puzzle - instead, the beauty of crisp architecture and cool, clean surfaces was given room to dazzle. Fortunately, she spent so much time fighting to move around that she had no time to be scared.

The world had become so much larger. She could tell from the space around her bed. The sheets now a continent. Walls that changed their mood as the Sun moved across the sky. Fingers that danced in the air as she made sense of the space around her. A feeling that she was an unessential part of the space she occupied, for she could be alone for hours and hear no one.

However, there was a distraction that turned the hours to moments; the internet. While she was familiar with its text and its picture, never had it been so gaudy and immediate as now on Earth. They had never been able to spare the bandwidth on Mars for videos or games or more; it had always seemed an artistic and tranquil cathedral of knowledge. Text and sometimes photographs, but always rigid. Everything was updated continuously and stored on Martian servers, but there was often a sense of being a few minutes behind. However, this machine under her fingertips had turned into a world that felt

as vast and unknowable as the one she now found herself in. There was something about colours. Shapes. Moving pictures, and music. How much music. Music and videos were sent down a list to the Martian colony, but Ambra had never yearned for anything in this world she knew nothing about. Mostly, they had enjoyed what their parents enjoyed, and after Tara moved in, 'Culture Wreck'.

She let song after video after song play in succession, letting the visual drama distract her from everything that was old or new. Laughing until her chest hurt and it was painful to breathe or crying until her eyelids closed thick and ungainly around her eyes. She could escape in a world that would distract her from her physical pain and how difficult it was to walk. The humiliation of being assisted into a wheelchair and her crutches that bit into her hands after too long.

The only thing that niggled away at her new delight was the feeling that something was happening to the emails she sent to the Martians. It could be as long as half an hour between sending the email to receiving a reply, and that's if the recipient replied straight away. She had found a lot of information that Ivan had requested and in her few attempts to share it, he had never acknowledged it or thanked her in a way that she knew that he would.

In particular, he was interested in a man called Omri Skala who had created a small group called Grounded on Earth, which seemed to be promoting a return to nature and the environment, as far as Ambra could tell. From what she could garner from their website, they were little more than a charity, but Ivan insisted that he used to be part of what he vaguely described as a 'Martian sceptics' movement when they went to university together. Omri had family in high places, rather like Ambra's own father, she thought. The guilt made her close the website and try to forget about Omri. How could she condemn someone no better than herself?

It was during a physio session with Finn that Ali stepped into the little clinic with a black, plastic-leather table that Ambra sat upon. Ambra had been a little upset that he had left for a short time, but he had explained that he'd had lots of debriefing to do and his condition was not as bad as hers. She expressed her concerns to him that she was certain her emails were corrupted because it was in Ivan's nature to be inquisitive.

He shared a glance with Finn who pursed his lips. Then, Ali rearranged his face into his usual carefree smile.

"Well, everything gets filtered that goes up there," said Ali, trying to shrug off the sentiment.

Ambra nodded, irritated that they considered themselves experts of her own home planet, "I know that, obviously. They can't have randoms sending us viruses. But they wouldn't block my emails?" Their shared glances were starting to feel conspiratorial. "Have you two been deleting my emails?"

Ali looked appalled, but Finn shook his head solemnly. "Ambra, there are entire departments filled with people who might be assessing the information that can and can't go to Mars. Ali and I cannot make those decisions."

"But no one would deliberately try to deceive us," she said, though wondering if that should be a question. They all jumped as the door opened again. Ambra hoped that it was Sahila and that the four of them would once again be together in a tiny, confined space. This time, on Earth as opposed to hurtling through nothingness. Instead, it was a woman so pale that Ambra reckoned her to be an apparition. Agnis was a woman who had always been told that she was destined for greatness. It was a good thing, then, that her head perched high above many others atop a slender neck so she could look down on everyone. Her skin sprayed with freckles of fire, with a copper bob that looked sliced with laser precision, gave her an ethereal, otherworldly presence that was difficult to place with just a glance, but she had such ferocity built into her gaze, her poise, her temperament that one was never invited to really just look at her.

She announced that she was Agnis and would be overseeing the Martian's recovery from now on. Ambra felt the prickling of two, otherworldly jewels piercing her form from amongst fire-flecked skin. With the authority of someone who's never been required to listen to the word 'no', she entered the room and sat herself down to watch, signalling that they should pay her no mind.

Finn continued to manipulate her shoulder, testing the new range of her limbs, but there was a new tension in his grip. He refrained from making eye contact with his Martian friend. His uneasiness travelled to her body, like an electric current, and she felt she too couldn't openly look at this stranger who mostly tapped on a small tablet, clutched in her bone fingers.

Now that she was upright and able, she felt an echo in her soul: the feeling of needing to be doing something kept her moving through corridors throughout the day, though she couldn't fill the hours. Finn tried to placate her and advised her to rest, for there would be much expected of her sooner than she knew.

Fortunately, a distraction came in the form of Ali, who had returned to Ambra with some new findings on her problem, however in a language that Ambra found she couldn't understand.

"So, I found that there is a single server that all communication that goes to Mars has to pass through before being sent up there, and there seem to be certain keyword firewalls that cause certain information to get flagged and paused to wait for someone to identify whether it can go or not."

Ambra had paused to take a sip from her teacup, the only movement was the steam caressing her face as she tried to comprehend what Ali had just said.

"What?"

He sat on the edge of her bed, twisting his body towards her. "Not just anyone can send an email to Mars. You wouldn't want spam emails clogging up your internet channels, so there's a place where they check all the information coming your way to make sure it's all useful, right? Well, the point is that there is a person, okay probably not one person, but someone who is deciding what does and doesn't get sent up to the colony."

She clutched the mug, cooling to room temperature, glossy beneath her fingertips. A personal hearth. The warmth turning to frustration as it cooled. While she certainly didn't represent the colony, she wondered if her father knew about this.

The Armstrong facility, though small and enclosed, like her home, somehow felt more cloying and oppressive. The long, empty corridors echoed with each step, bare and threatening. She had never dreamt of these sorts of corridors, naked and infinite, but she found herself walking them in her dreams, never able to find anyone, though they ran just ahead of her always out of reach. She was still getting used to her new body, and as they ran faster ahead, she found she had to run too, her crutches clacking over the tiles and then she was terrified she would slip and crush each of her new bones in half. A portion of floor would slide from underneath her and

she would tumble, then gasp awake in bed. She yearned and feared the time when she would leave. To walk on the Earth.

**CHAPTER 24**  
**EARTH, AUTUMN, 2140**

The silence stretched between them, Ambra finding herself unable to move her lips let alone practise the rest of her body. Finn wouldn't break an oath of silence, he had already proven that he was a man of confidence, however, he was trying to tell her something in those passing heartbeats.

Sharp footsteps along the corridor shook them from their reverie. Finn leant forwards, suddenly energised by the fever of a man with little time left with the living.

He tugged her arm forwards, pressing her palm against his and she was about to reply when the door was flung open. Agnis gazed at their activity, her fire lashes squinting at them. Ambra tensed, but Finn remained completely at ease; his hand had slipped up her wrist to take her pulse. He was looking at the clock on the wall and muttering to himself.

"When you're done," she drawled, tossing her bob.

"Your heartbeat is still on the fast side of normal, but I am happy with your progress." He let go of her hand, turning finally to their guest. "Ah, Agnis, I believe we had agreed you would not be interrupting any further physio sessions?" He said, perfectly polite but firm.

"I shan't be long," she huffed. "I'm here to collect the alien. Then we'll both be out of your hair and you can carry on," her lips slid into a grin, "looking cheerful."

Alien? Finn was not going to allow such a thing to happen, having already fought for the right to conduct the sessions his way. Before he could respond though, she continued, "I would just consider where you want to be spending the rest of your time on Earth."

Ambra laughed, and said, "Well, certainly not in a bed!" The joke fell rather flat. Finn indicated that she could go, much to her alarm, and he turned to his files, pushed them away. She gathered her crutches and started to carefully walk to the door, but Agnis indicated she was to get in the wheelchair, clicking her fingers as she did so. A wave of defiance spurred her on with the crutch and Agnis rolled her eyes, forced to plod alongside her with the wheelchair. Before she closed the door, Finn gave her a thumbs up, but when she glanced back through the window, he had his head in his hands. Agnis walked in silence, punctuating each footstep with a clack of her heel. She led her down the institute corridors until they reached a room she had never seen before: it was much the same as the other rooms, but there was a conference table in the centre, a man sat in the centre, wearing a sharp suit that was perfectly tailored, and hair that was groomed down to the last atom. His slightly awkward perfection reminded her rather of Agnis.

"So, your room is here. You'll share with Sahila. Be down for breakfast at 6:30. Sharp." Having given her instructions, Agnis disappeared into her own room with a flick of hair like a drop of red sunlight and a whisk of a perfectly pressed skirt. Ambra held the plastic card they'd been given at the front desk ahead of her at arm's length, the piece of plastic dangling at the tips of her fingers.

"Uh... Sahila? What do I do with this?"

Sahila chuckled, taking her hand, and together they pressed the card towards the receiver.

"Ah, clever."

The door beeped at them, then, with a click, it opened into their hotel room. There were two cloud-like beds pushed against the wall, pillowy and downy and looking downright perfect to be engulfed within. Ambra ran towards one and leapt onto it.

"Ooof!" She laughed as she plunged through the fabric.

"Sahila! Have you ever felt anything this soft before?"

She frowned, probably thinking about how a proper spokeswoman would behave. "Yeah yeah, you enjoy bouncing on the bed. Don't forget to check the wardrobe. That will blow your little Martian mind."

Ambra pouted at that. "Hey! Just because my mind is Martian doesn't mean I'm stupid!"

"I know. You're just ignorant."

She responded with a high pitched "Uh!" Almost like a chair being shunted too quickly against a wooden floor.

"Hey, ignorant is okay. It's better than actually being stupid. It just means we need to expose you to the world. And that is exactly what we're doing."

Ambra buried her face back into the divine, white bed - there was too little time in life to listen to people being smarty. Sahila disappeared into a little room she hadn't had the time to investigate yet. Soon she heard the faint patter of water. It sounded soothing in the background of the room with soft floors and white, clean walls with a large window. She wandered to the window and pressed her nose against it. Little lights glimmered in the city below. There were water roads between buildings that shot up to glorious heights, reaching to the sky. There was a large, gold statue in the distance, thrusting a glinting beacon into the heavens like she was reaching higher than the skyscrapers, the ocean nearly lapping against her feet. Then, the whole image vanished in the fog of her breath.

"Sahila?" She asked, glancing back for an answer, but the shower was still running.

She re-examined the mist, though it was fast disappearing and revealing the reflection of the wardrobe in the pane of glass. She turned back to open it, wondering why her companion had suggested peeking inside. She opened the doors and her face lit up with delight. Inside were two fluffy, white robes. They looked positively wizardly. And soft. And wonderful. Sahila came out the shower, hair in a towel turban. She stopped short when she saw Ambra. She was huddled on the bed, flicking through the hotel menu. She was swaddled in a towel robe.

"So, you found the towel robe, eh?"

Ambra tugged it up to her cheeks, positively radiating warmth and comfort. "It's like wearing a bed! I'm a little cloud! I never want to take it off."

Sahila laughed. "Do what you want, you're a grown woman." She draped the duvet over her body, and it hung heavy over the sides of the bed. She reclined into the pillows, her shoulders and head propped up like she was examining her toes, but her eyes closed serenely. The towel turban gave her an aura of queenliness, even in sleep. Each gentle breath squeezing a little roll under her chin in and out of existence.

Guilt sliced through her - she couldn't recall the last time she had seen someone sleeping. Since she could remember,

sleep meant a safe little burrow. White walls, and a fan with a rhythmic ticking. She found herself breathing in time with her companion and couldn't relax. Although she technically shared a room with three other people for her entire life, the walls between them were gone. Then she tossed back and now she could see her eyelids twitch, her lips falling open.

"What on earth are you wearing?" The shriek pierced the dining room. From Agnis's perfectly lined mouth.

Other patrons of the breakfast room looked in their direction. Most of them were in business suits. Some were chuckling, but others shook their heads and a woman clapped her hand over her mouth.

"Isn't it wonderful?" said Ambra, feeling a little confused, leaning on her stick.

"You wear the outfits we provide!" She hissed, shooing them back towards the elevators. "Do you know how much money sponsors pay us so that you can be seen in their brands? How could you honestly think you could wear that to breakfast? Do not tell me that you were planning on wearing that outside."

Ambra visibly slumped. "Sahila said I could wear whatever I wanted."

Sahila chuckled a dark chuckle, eliciting a scowl from Agnis. "Well, I'm glad you're laughing, because I'm not! Go up and change immediately! And return the robe, it belongs to the hotel."

Ambra trudged upstairs, little white slippers flopping with each step. She hadn't even got to the breakfast buffet. Sahila ran up to her.

"Thanks for nothing," Ambra sulked.

"Hah, come on, girl, you were amazing! You should be standing up for yourself more, Agnis is only here in an advisory capacity."

That didn't stop her from feeling used as Sahila's tool for rebellion in front of plenty of people who knew hotel etiquette. She might have hoped Sahila would take a greater role in helping her blend in, whereas it seemed she was only eager to stop her integrating.

"Besides, you probably don't want to keep that one anyway. Loads of other people have worn it."

That only deepened her frown. "On Mars that wouldn't matter."

Sahila flicked off the comment before it could disturb any deep philosophies she maintained regarding waste and resources. Thankfully, she also didn't call her out for

sulking. "We'll buy you your own one. I assure you it will be even softer."

Ambra nodded sadly.

**CHAPTER 25**  
**EARTH, AUTUMN, 2140**

In the taxi to the scheduled meeting, Agnis made her cram soundbites. Numbers and facts were simple to remember, she had plenty of memory tricks for those, but the long sentences and their flowery words slipped from her mind.

She was the only person on planet Earth with the right to speak for the Martians on the Martian council, a first since the time delay between the planets made a direct link impossible and Mars usually received the memo at the end of the session.

Anxious not to make a fool of herself, she repeated each word back to Agnis but found herself forgetting what the start of the sentence was by the time she had finished it. They just weren't her words, they belonged to a different world and that thought only made her try harder.

Agnis had a viper grip on her shoulder as she clambered into the wheelchair, and she led her past the stairs and down a ramp. There were tiered seats with desks amongst which people dressed in suits were taking their seats, talking gently, running around to deliver last-minute information but all with an air of sophistication. Ambra kneaded her skinny legs as she tried to remember anything that Agnis had told her on their way here. Agnis nodded to one or two people as they tried to approach her, but they cut their sentences short. An organiser hurried over to the pair, introduced himself as 'Gordon' and declared that he had created a special seat for the Martian representative. He showed her a special placard he had organised for her: it read 'Valles Marineris'. He showed her the light and they tested the microphone together, which attracted titters and attention from the rest of the room.

Finally, he set her up with a set of headphones and showed her the translation controls. She brushed her trousers, feeling rather like an imposter, but determined to do her father proud.

"Welcome representatives to this, the 62nd Martian Council on Earth; for the first time we have invited some select representatives from non-Martian-program countries," started the chair, but was interrupted as a few people near the back of the auditorium interjected. Ambra could hear a tut from just behind her that was unmistakably Agnis.

Agnis leant towards Ambra and whispered, "There was little interest in this symposium in the early colonisation years. Everyone thought it would fail, but now they've cottoned on that they're missing out on something and everyone wants a slice."

Ambra swivelled to survey the symposium stretching away from her at all angles. She had thought about the source of many things in her everyday life, but rarely the origins of the people who she had never encountered in the colony. Here they were; fighting for representation and trying to justify their plight.

The chair continued when everyone had quietened down. "We also have another first for representation: that is our very first Martian." There was a quiet applause while the organiser made eye contact with her specifically. "We are honoured to be in the presence of your wisdom and are certain you will be a valuable jewel of this committee."

A voice from the back of the room yelled, "So you're honoured that she's here, but not us," to a rumble of agreement.

This was too much for Agnis, whose voice rang through the auditorium. "We, the countries that have invested in the Martian base, are the ones who are qualified to make decisions on how it is run." There were murmurs of agreement from other representatives in the front rows, someone else piped in, saying, "You are lucky to even be afforded an audience."

The chair cut the microphones and continued to call for order in the symposium. There were cries of outrage, though they were dulled in the carpeted room, clearly a room designed not to allow sound to echo. As quiet returned, Ambra felt a sensation difficult to articulate. Guilt that arose from overcoming many trials just to be seated in this room only for others to discredit her validity.

The thought was punctuated with a shout from the lungs of a man powerful enough to be heard even in a room designed for silence.

"Our economies should not dictate whether we are represented on a new land. Our cultures must not dictate whether we can step onto the new land. Our religions cannot dictate who can go to the new land. With all that we have learnt about colonisation, should we not come together to venture forth into the final frontier, rectifying the mistakes of our ancestors?" His face was familiar, the long, thick chin and black hair, she had seen it all before in the photo of Omri Skala. The man Ivan had warned her about. A bodyguard moved towards him, beckoning him to return to his seat, but Omri would not be silenced, instead, he pointed a thick finger right at Ambra, and said, "You dare to suppress us and in the same breath, rob us. You look like a fairy but it is nothing more than the pretty mask of a dictator."

She was aware of glances in her direction. The bodyguard grasped Omri in order to take him outside, but he struggled in his grasp. "Silence me at your peril! Silence Earth at your peril!"

With those last words, he allowed himself to be escorted from the building. Ambra felt so shaken that she could barely hear the rest of the conference. Never had she encountered such frightening passion. It set her blood racing and though she was scared, she was also thrilled, and she understood now why Ivan found him so fearful a man. She had understood her father's constitution but he had such passion that it made her loosen her grip on her integrity.

The lunch had failed to draw Agnis away from an easy conversation she had with a man in the corner. They had gravitated towards each other with an air of friends who no longer needed to concern themselves with the 'everyday' trivialities of organised lunches. He whispered quietly, with exaggerated movements to cover his mouth, but laughed obnoxiously loudly, daring others to wonder what grimy gossip they were stewing. She smirked in return.

Ambra, on the other hand, was wide-eyed still, not tired by the uniformity of cabinet manners yet. Every conversation opened a new portal into the Earth. It wasn't as though she was stuck for people to talk to either. People hovered around other people's conversations with her to get a word in.

She'd just managed to take some of the tiny, frilly pieces of food. Pieces of white crab meat with their pink skins and avocado were wrapped in rice and topped with seeds. Fat prawns in golden batter were brought around, and the server showed her the red sauce to dip it and the bowl in which to throw away the tail. White balls of goat's cheese mixed with chopped herbs and coated in crumbs. She popped one in her mouth and the tartness made her eyes water. It was a wonder that anyone thought the food was a lubricant for conversation when it was so artistic. It was rather more interesting than the conversation she was having with a man who confidently claimed to be from somewhere called 'Prometheus Enterprise'.

"Well you know, I always said that these Mars colonies were a fantastic idea," he drawled. Ambra nodded through a little flaky pastry thing that had green stuff in it. It was delicious. "What do you think?"

"Hmm?" she looked up at him through a mouth of pastry. She thought it tasted like heaven. She was also sure that he wasn't asking about the food. The man's voice was a fascinating accompaniment. "Sorry, I didn't hear you. Have you tried these thingies?" She picked up another little parcel that she'd collected from a waiter and dangled it towards his face.

He looked at her as one might inspect gum that had gotten stuck to the bottom of his shoe. "I actually thought that the samosas were a little soggy. Not up to their usual standard." Ambra couldn't have disagreed more. It was divine ambrosia, heavenly food. She licked her lips and tried to remember what on earth they had been discussing. "Umm, yeah, the Martian colony is a great feat of modern mankind. We are truly indebted to the kindness and generosity of Earth for keeping the project alive as long as it has." She smiled, proud that she'd remembered the drivel that Agnis had penned out for her before her speech earlier.

"And may it go for many more years," said the man, raising his glass. Ambra nodded at him, bemused. He looked at her pointedly and said, "You're meant to touch your glass to mine."

"Oh," with a scurry of movement she raised her glass to his.

"Yes, hear hear." Their glasses chinked and he pattered off to chat amongst better-suited individuals. Ambra felt alone with her little samosa. She looked at the little piece

of food that had been branded 'soggy' and 'not as good as last year'.

"Well, he had a rather interesting philosophy," came a whisper from behind her.

Startled, she turned to see a man behind her. His skin the colour of dark tree bark. A tumble of hair looked effortlessly sophisticated. He winked when he smiled at her.

"Ah, well, I rather thought the samosa was good." She volunteered, feeling foolish still.

"Hah, yes, I quite agree with you actually." He shifted his weight onto one foot and placed a hand over his pocket. "I thought what you said about Mars was very insightful too. Actually, I thought it was quite similar to what you said in your speech."

"Ah," how embarrassing, "I don't... I was just given some things to say. I don't really get much chance to say what I really think. Not yet anyway." She flicked a glance to Agnis and back. She had just snorted at probably some particularly juicy piece of gossip.

The man examined the red-haired statue-like woman over in the corner. Ambra sucked on her lip, she hadn't meant him to know who had been inflicting these restrictions on her.

"Hmm, well, Miss Martian, what is your actual opinion on the Martian project?"

"Well, I think it's pretty good for the people who went but not for the people who were just put there against their will."

He raised an eyebrow. She wondered if she'd said something wrong. "Yes, I rather suspected as much." That was a relief. "Well, a pleasure to meet you, I'm Elijah."

"Wait, you don't mean Elijah King?" The owner of Alpha Mars. The funder of a good portion of the Martian colony, the owner of a city and the man Vera detested.

"Please don't act any differently around me. I assure you, I am in your debt." His smile and manner were so unlike everything she had imagined. Especially the sparkle in his eyes that reminded her of Kauko. "As you said, Mars was never your choice to make. If there is anything I can help you with: a job, somewhere to stay, the best tailors, don't hesitate to phone that number."

It was the kindest thing anyone on Earth had said to her. After months of prodding and poking, pain, interrogations and bureaucracy, she did not know how to respond to his generosity.

"Oyster, sir?"

"Gladly." He took two, swimming in a bubbly liquid, and squeezed lemon juice from the fruit over them. Then, he showed Ambra how to remove the oyster from its shell and tip it straight down the throat. He placed the empty shells on the server's tray and said: "Marvellous selection this year. Thank you."

Ambra found she couldn't look away.

They were interrupted by a clicking, two fingers snapping at a table nearby.

"Bah! Elijah!" barked the man. He had a full head of white hair, styled away from his face, though it must have been with other hands, because his own shook. Many layers of waistcoats and jackets, each one worth a small fortune, cut a fine figure on him, even though he was portly and clearly indulged in the fruits of Earth. "Bring the girl over here." Elijah closed his eyes for a moment, as though gathering his strength, then, smiling like a mask, he offered Ambra his hand and led her to the man.

"Oh no, please, Andrew, don't stand up," he said, as the man fumbled for his cane and heaved himself with what seemed a great effort from the chair. Beneath his rear was an embroidered cushion, which must have been one of his own.

"Nonsense," he laughed, waddling towards her. One of his legs was gammy. "When in the presence of the first Martian, I feel it is only fitting that I come to you." He laughed that dog-like laugh again. "You have already come over a million kilometres to be here, let me come the last few steps." Ambra smiled. "I guess that seems a fair trade."

He knocked their sticks together and grunted. "Is this the tripe you're expected to walk around with, these days? Despicable." He looked at Elijah from under his bushy brows. "I would expect Alpha Mars to equip you with something more fitting as the first Martian."

"It is a medical device, not an accessory." His voice and face were pleasant but he spoke in a clinical tone.

She held out her hand tentatively. There always seemed to be a pause before she had to grip another person's hand.

"Ah, to hell with that," he growled, pulling her into a hug. "I'm Andrew Hendricks the third and I knew your parents, you know."

There was a blankness in her mind at this thought. It had never occurred to Ambra that there were people on earth who were related to her somehow.

"My mother and father?"

"Yes yes, your father not so well. I was never well versed with the Chinese. Could never get the hang of Mandarin, drove my governess mad. But beautiful Scandinavia, on the other hand." He beamed.

"Would you tell me more about my mother?"

Andrew walked them back to the chairs and took his seat again. Ambra was relieved to sit as well, her legs and lower back were aching.

"Where to begin." He removed a thin box from the inside of his jacket and opened it, revealing a row of sticks wrapped in soft paper. "Your mother was a wispy little thing. She always seemed quite meek and quiet, but there was no getting her to do something she didn't want to do!" He pulled a cigar from the box and placed it on a handkerchief he pulled from a front pocket on his jacket. "I believe she lived in some old wood shack up in the middle of nowhere. And that's how she liked it. The further from," he waved his hand around the room, "all this nonsense, the better. I wasn't the least bit surprised that she was selected for the Mars program." He struck a match and rolled the cigar over the flame. The mere ritual was fascinating. "Your parents. Like every other Martian they had a void to fill. And that was only to be filled by removing themselves from the planet completely. And that was exactly what was needed for the first mission. I know your father had some, let's say, antisocial habits. He enjoyed his chess, I seem to remember." He sucked on one end and leant back, a billow of grey smoke wafting from his lips and into the rafters.

Elijah pursed his lips, still standing, and said, "You shouldn't smoke indoors."

He cackled but paid no heed to the warning. "That was something special about all the Mars kids. All reclusive. You've got to be if you want to spend six months in a tiny rocket with three other folk. Followed by the rest of your life." Another puff. The man's deliverance of his memories was enrapturing, encircling Ambra along with the smoke from the cigar. Mesmerising. "Now, your mother was something else." He scoffed. "She hated this accursed world. Even though she was from the Scandinavian empire; the kings of harvesting natural technology, somehow she resented it." He sighed. "I remember us talking together before she left. I'd never seen anyone as resolute in their decision. Of course, all the Mars kids must be 100% sure, if anyone ever has doubts, we hold them off

until next year. And then forever. You can't go if you're not 100%.

"She was having her blood plasma tested one morning. I was there to see the results since I was overseeing that mission. I wanted to really get to know the people we were banishing informally forever. She sat there, much like you sit there now." Ambra perked up at this. "Serene. Beautiful. Attentive." He smiled. "You know, she told me about her plan to have the first Martian child when she arrived." He laughed at the thought. "I laugh now, as I laughed then! 'What poison has entered your mind?' I inquired of her. She told me that she'd seen the line-up of the people currently on Mars and had one in mind." He raised an eyebrow at her. "She commented that, 'It was childish, for sure, but when the list of people that were already on the colony came through, it was difficult not to wonder.'"

He scanned Ambra through squinted eyes. "Bet you're wondering what she said to me, who it was?"

Ambra nodded, a little curious, but wondering what she'd think if it was anyone other than her father.

"Well, I daresay she could have had any man she wanted up there. If beauty were a weapon, then she was a Valkyrie." He put his hands up in dismay. "But she would not tell me. Cards close to her chest." He took another satisfied draw from his cigar. "But I think it was your father. His eyes were gentle. Gotta trust a man with gentle eyes."

He passed it to Ambra. She'd only seen Finn breathing smoke from a mechanical object. But this looked like it was made from tree bark or something crispier, soft and fat in her fingers.

"You want a puff? Don't breathe it in, mind."

Eli reached around her and with two quick flicks plucked it from her hand, adjusted it, and returned it so that the next actions were more obvious. Ambra sucked. Spluttered. Grimaced and politely handed it back to Andrew, who laughed. He grasped it and took a healthy puff.

"Not to worry old girl, it takes years of breathing in muck and pollution before your lungs can really appreciate their tar sticks." He breathed out another billowing cloud of the stuff. "Aaah, call me old-fashioned but I can't get used to these gizmo vapour machines. Give me a good, life-shortening cigar any day."

Her lungs didn't take to the cigar and she now understood what was meant by don't breathe it in. On top of the food, the

wine, she felt a wave of nausea, not helped by the smoke in the air. As though watching from afar and assessing her, Sahila materialised behind Eli and helped Ambra to her feet.

"Let's get some air. Thank you, gentlemen." Did she have gentle eyes?

The air outside the hotel wasn't any cleaner than the cigar smoke, but the racing wind helped the wave of sickness pass.

"I've never heard anyone else discuss my parents before their life on Mars. Not like that, anyway. It's almost like..." Ambra felt sad, "that part of their lives never really existed. The journey from here to there severed those memories. It's like you're two different people."

"Do you feel severed?" Sahila asked.

Ambra looked down, thinking about the girl she left on Mars. Was that the same Ambra? Who was she now? "I don't know. I haven't really found my place here. I feel like I'm in limbo." She looked up at the skyscrapers, unimaginably tall architectural achievements, but in no way grander than the Valles Marineris. Still, they were comforting in their own way, like a whole city was kept in each one, compartmentalising the chaos. "Like I'm waiting for something."

"You will never be truly Terrestrial, and you will never be truly Martian. You are now a hybrid of sorts. Whatever you decide that defines your identity is up to you."

Agnis staggered from the building, flustered and panting. "I was looking for you everywhere, there are a lot of people still waiting to meet you."

She tugged on the white jumpsuit that Agnis had insisted she wore. It was loose, unlike the almost surgical tailoring that had been forced upon her on Mars. Whoever had made it had her comfort in mind, and this comforted her heart.

"I think I want to go on a pilgrimage. See my parents' homes."

"Your soul needs some calibration. That might help."

"Are you listening? Inside, now!"

Although she was exhausted, she had no desire to go back inside. She could go into every one of these buildings, one a day, and surely never discover all the city's secrets. There were so many. Desire pricked life back into her sore limbs. To move, to go. She pulled out the card with the red logo and the handwritten number and smiled.

When she lifted her gaze to the street, she noticed a figure in the crowd, a hood low over his face, running straight towards her. The image was so unexpected that at first, she did not think it strange, but his path did not waver; if anything, he gained speed and he tilted his body before the collision to reveal a horrible determination on his brow and a ferocity in his blue eyes. She just had time to raise her arms in front of her before something flashed in his hand and their bodies collided. The force of the impact unsteadied her, and her stick slipped along the pavement and out of reach as she flailed, trying to break her fall. Although she was aware of her heaviness, it was as though the ground had rotated under her feet and smacked against her body. Her wrist snapped. A crisp, horrifying sound that echoed in her mind and was the only thing she could concentrate on in the confusion as bodies squirmed and tumbled on top of and around her.

When she tried to sit up, Sahila had the man pinned, his face to the ground and Agnis was sitting on the pavement, her face pale and hair ruffled as though from the shock of a fall.

**CHAPTER 26**  
**EARTH, AUTUMN, 2140**

Once again, Ambra lay on a bed. It had been three days since she could really remember anything. Her wrist was in a rigid bandage and ached. She caressed the ridges of plaster, recalling how the bone had poked out of the skin. It was so surreal that she hadn't even known what it was sticking out of her arm, for a while she thought it was a knife.

For a planet that felt heavy with humans, it was possible that they wanted to be rid of people for the long term. Immigrants were often used as political scapegoats, and Martians were the ultimate in alien lifestyle. Plus, they were a huge drain on taxes: Ambra had already received hundreds of hours of private physio and therapy.

The animosity towards her people was alarming: they were all from Earth. She wondered if family roots might even be more important to people who had never even known their parents' homelands. The man opposite her, scrawling black ink over a white page, wasted the paper with his large handwriting. The woman next to her had lost concentration and had slipped her phone out from her pocket and was using it under the desk. Maybe they were different beyond reconciliation. She certainly felt detached from their world. Even in the privacy of these four white walls that were bright and luxurious otherwise, it still felt like a prison, that there were eyes in the walls peering at her. She was certain she had never felt this lonely before. Once again, her thoughts wandered far beyond these walls and up to that red planet far away.

Sahila insisted that she would stay in the same room as Ambra from then on, which was a comfort to them both knowing that they could share their fears. For Ambra especially, who relied on Sahila to compensate both for her poor body and her lack of knowledge.

The man who had attacked them was dead. Sahila had shot him after wrestling him off Ambra. His name was Omri Skala and he was part of a charity group called Grounded on Earth, which was currently undergoing a chaotic spread of hatred and support all while battling to keep their charity status.

"Ivan knew he was dangerous," said Ambra, remembering his fascination with the man. She wondered if news of her attack had reached Mars or if that too had been filtered. "I think they should be disbanded." The hatred coming towards her was disarming.

"The charity might have nothing to do with his thoughts," said Sahila.

Ambra looked at her like one might look at an imbecile. "He called it 'Grounded on Earth', he might as well have called it 'We Hate Mars'." She curled up in a ball, trying to protect herself from the ghost of this man's loathing of her. "How could anyone allow something so hurtful to exist?"

In her way, Sahila strode to her bed and lay next to Ambra. Brushed her arm softly, she recounted her experience, which Ambra interpreted as wisdom.

Ambra closed her eyes. It was a rare morning when she was not exhausted to her core. Each stroke from Sahila's warm hands injected life into her core.

Soft sighs raced over the blanket as Sahila formulated her answer. Delicate where her bed friend's prejudices were an unknown quantity.

A cherished sentiment that felt like an accusation. Sahila drew in a deep breath and hummed gently, turning it into a sweet tune that she knew from her hometown. Her Martian's eyes had closed to enjoy the melody, while she stroked the hair tangled in the sheets.

Ambra rolled onto her back, contemplating the void between herself and the ceiling. White, like the Martian ship. A void, unlike anything she had seen. "I have been taught to recognise relationships between people," she prodded Ambra and added, "You are an open book. In fact, you Martian-born all are. Inept in deception. I would advise that you do not condemn this charity." She rolled to stare at the ceiling also, palms resting under her bosom.

Ambra rubbed her hand down her body, feeling the pudge over her breast and her stomach. She had the luxury of gaining weight now that she was free to partake of seconds. The food was also delicious. Vera. Tara. Noz. The women from Mars. Never had she even teased desire for them, however, she tried to tickle the fantasy. Lying together in bed, like she and Sahila had done. Noz's soft skin, Vera's cool eyes or Tara's waist-length hair. Maybe Tara was more comfortable to lie within her mind, but there was so much familiarity with them; like her sisters. Stranger fruits, like her friend from Earth here, were somehow more comfortable to lie with.

"Sahila, I don't think I love you. At least, not in that way. I do love you, of course."

She chuckled and tapped her cheek. "Transparent as ever. It might be wise to keep your secrets close to your heart." "But everyone knows that we're friends!" she exclaimed, as Sahila righted herself to ready for the day.

"Colleagues. We need not be friends." Sahila was firm but relented as Ambra furrowed her brow in shock. "I love you. Very dearly. You are the sweetest human being I know. You are beautiful and strong, you are kind and innocent. I would never let anyone know how dearly I feel for you. I am certain they would use it against me."

"Well, there is one way that you can overcome your pains."

Her eyes snapped up at him, eager to hear what he had to say, almost angry that he had kept the solution from her for so long.

"Well, it's obvious, isn't it? Go back to Mars."

The realisation was almost transcendental, it burned so in her throat, then it swelled in her chest and seeped in her heart. The pain was so much that she couldn't make sense or structure of it.

"That can't be your solution."

Finn rubbed the stubble growing a shadow on his neck and leaned over his desk. She thought of the many times he had leant on that desk and the times he would do so without her ever knowing if she returned to Mars and suddenly, it seemed the most important movement she had ever witnessed.

"It can't, Finn! It can't!" she nearly screamed as the realisation seeped through her the first time, cold like a saline wash.

Instead of suggesting another avenue or a different solution, he reached for her hand and tried to grasp it, but she tugged it from him in her anger. How dare he try to comfort her after giving up to Earth's whims? How dare he?

"Ambra, I can think of nothing else. It is your fate to be a test subject."

She cried out in pain at his statement, a cry so primal that it spoke for her without the benefit of four thousand years of language. As soon as the sound left her chest, she was stunned by it, and felt the necessity to act, to destroy, and she grasped the first thing in her reach, the lamp on his desk. As she contemplated it and its strong, wireframe, she questioned whether she would really destroy it. It quivered in her weak grasp and as she thought through her destruction, it merely slipped from her hands and bounced on the floor. Finn made no move to reach for it, merely stood and grasped her in his arms, more fully than ever before. Soft cotton pressed into her body, in between the warm, soft flesh of a real person, and she scratched at it, clawing at the fabric, crying out and screaming at his condescension, at his pity.

Eventually, tired out, she hung in his embrace, weak from her tears and feeling his shirt dampen beneath her face. Each arm tucked between their bodies like a little chick and he held her as the first waves of realisation, with all their sorrow and anger, overcame her body.

"It's not fair," she whimpered, bitterly aware of her word's pathetic power. "It's not fair," and she knew she did not belong, that his words were true.

"It isn't," he said, aware of her ancestry pouring their veiny blood, sucked dry of nutrients, of legacy, over her tiny body and its every attempt to step in the world she should belong.

He held her in his arms that night. They might never hold each other again, although this was something they might never have done had she been able to gambol freely into the downy branches that made up the arms of the Earth. Forbidden from seeing the hardships that many waded through the lens of denial, permanently rueing everyone their trials behind her tears.

Ambra knew Finn would never treat a patient this way, but how could they be considered doctor and patient when he had fished her from the Mars' ranks, chapped and cooing, just to throw her back into the war in defeat?

The sadness soaked into her consciousness throughout the night as she slept in fits, waking in Finn's arms, only to close her eyes and blink them open again though the moon had made its way across the sky, that bright eyeball that opened and closed over the people of Earth, much like she felt in her tossing sleep. Its presence was much more wholesome and bright, unlike the two brothers of Mars, fear and dread, that raced around the planet with no synchronicity or order. The moon was just there, a constant light that could be relied on, nearly touched.

She watched its early morning descent below the horizon, aching from her sleep. Her nighttime rest had not really been restful here. No sweet kiss of sleep nor the soft embrace of dreaming had cupped her chin or wrapped her in their arms on this planet.

But the thought of returning to Vera, to Ivan, her father even, somehow it was unbearable. How could the adventurer return when their goal was to stay away? Unbearable shame took hold of her and she couldn't move from the sill until Finn wrapped her in a blanket and directed her to her empty bed. She did not want him to leave but he did, drowning the morning light with the curtains, which in itself made her weep. How could she dare to close her eyes to the morning's magnificence? Who would appreciate it if not her? Who even could?

**CHAPTER 27**  
**EARTH, WINTER, 2141**

Agreeing to leave had been easy. It was a simple email. She knew what her father would say to her if he were here. "You can still be grateful for the experience you had. It takes great courage to lift yourself from sorrow."

Zhou was a man who knew courage, he had left Earth after all and committed to a life of hard work and hard choices, but he had the advantage of priority. Even with the isolation, Zhou's arrival was stirred with camaraderie and the spirit of a pioneer.

Ambra rolled on her bed, the last of feather-down comforts to ease her forehead and its thoughts. Her return would be a failing. She felt used, her body no more than an experiment, fifty kilograms of data to improve on for the next model.

The sunrise made her eyes water. Sahila had placed a chair outside for her and covered her with a blanket. The moon still hung in the sky, a pale slip. They had offered her a place on the lunar base, where there were mainly mining missions but why would she stay so tantalisingly close to Earth? Then again, perhaps that was the best way to see the Earth, everything was more beautiful as a whole. On the streets, she could see the dirt and decay, the sickness and the broken things no one felt compelled to fix. Except that she hadn't saturated herself in its wonders as well as its disasters. To explore the moon might be fun for a time. Sahila did not say yes when Ambra asked her to come to Mars, but she also did not say no. The pain in her expression made Ambra angry since Sahila also felt the pull of Earth and did not fight for Ambra to stay. She had declared her passion for

this Martian and Ambra had tried desperately to go where Sahila was, but would Sahila do the same?

"I can't go with you to Mars," she said, in between a kiss, after spending much time deciding on what to do. Having been on edge most of that week, this sent her into a continuation of her wallowing. But Sahila insisted their eyes meet and lifted her chin, light as a butterfly. "But because I see how unhappy you would be. How could I take you there?"

Ambra flicked away her hand and wiped her eyes with her sleeve, feeling foolish. "I would get used to it. Don't pity me."

She leant in and said, "I'd go with you somewhere else, but not there."

These words simmered with Ambra as she prepared for the voyage. Standing in water, feeling lakes warm and wet like a lover's kiss, the words rolled through her. Gazing near the sun, their brightest star, something occurred to her. Some small thought that glimmered too brightly for her to see truly. She shielded her eyes and looked away from the sun to the brilliant blue sky beyond the facility and the answer was right there. As open and touchable as the open sky, further than the furthest footprints and larger than any teenage fantasy.

"Come with me, we'll skip Mars," she said.

Sahila leant back, her eyes sharp with questions. "Let's go and get fat in the Bahamas and drown in the oceans." Ambra shook her head and pressed their noses together. "Let's just go. Out there. See the first things people have seen. There's nothing new here, it's all up there."

**HONEY****CHAPTER 28  
EARTH, SPRING, 2250**

Two hands clung to the front of her shirt, kneading the cotton like a sleeping kitten. Was he aware of the upheaval in his little life? Her three-year-old son, Jacob, was heavy in her arms, almost too heavy to be carried, but earlier that morning, his universe had expanded further than ever before, beyond the walls of the brothel, and she couldn't put him down. Just after midnight, strangers had broken into the house and were pulling them from their beds and bundling them into cars. Jacob had screamed as women, whose constant presence had been a source of security for him, fought the strangers who dragged them all away. Even if their abductors were policemen and had good intentions, how could she explain that to him? If the adults were scared, what security was there for a child?

Although her arms felt sore, she held him tighter. Even if her fingers were about to break, she wouldn't let him go that morning. In truth, he was as much her pillar of comfort as she was his.

They were shuffled to a grey building that overlooked a dual carriageway. There were soft bundles huddled against the walls, which she realised were people. Some in blankets, others on cardboard. Her other son, Ethan, reached for her hand. Horrors he had seen, but never had he slept without a roof. She squeezed it, and with that motion promised that she would be the first to sacrifice a bed before her children did.

Inside, the building was clean but reminded her of a cat and mouse game with its thin, featureless corridors. The white walls were bland. Though there were footprints on the floor,

still wet, there were no blankets piled in corners. This building was naked. Ethan, ran up and down the corridor entranced by the way his footsteps echoed but always running back to her with wide eyes, scared and overwhelmed of his new freedom. He was caught between giddy joy and the silent threat of a beating. She ached to show him he wouldn't be punished for being a child anymore.

They were shown to a room. Although there was a keyhole, the door was unlocked, and the helper pushed them in. Already asleep in one of the two beds was a woman whose cotton blanket was pulled so far up her body that only the crown of her smooth, black hair could be seen.

"Who's that lady?" asked Ethan, pointing.

"I don't know." She would have preferred one of the other women who had lived in the brothel to stay with them, but the stranger would have to do.

She pulled the plastic mattress off the bed because they could not all sleep on it without falling off, then she laid Ethan and Jacob down and tucked them in a blanket. There was no more room on the mattress, so, lying on her coat on the laminated floor, she wrapped her arm around her sons and her gaze wandered from their faces to the mesh underbelly of the metal bed frame. Each time she closed her eyes, there was banging, men storming into the house and women screaming, "Shelby's been arrested! Shelby's been arrested!"

The women's shelter felt like limbo. Everyone was in a state of transition. Women hung in their rooms or the corridors like spectres, their faces changing day to day. Some nights, the people sleeping rough outside their windowsill would shout into the morning, drunken or otherwise. The rush hour traffic roared outside.

Yet, the fear that clogged her throat had loosened. She could no longer sleep all through the night, not after two children, but when she woke, she could take her time and peel herself out of sleep. No longer alert in the blink of an eye.

Her roommate changed quickly. The first one was woken in the night by Jacob's crying. Unimpressed with the sounds of children, she had demanded a room change. Fortunately, a volunteer was nice enough to swap and accommodated her children with good humour. The woman was long, each limb stretched like playdough, and she looked stringy.

"Hi, the name's Brooklyn."

"Bookie?" said Ethan, staring up at her, open-mouthed.

"Close enough." She laughed, scrunching his hair.

"Although I assure you, never read a book in my life!"

Brooklyn wandered around in her white cotton knickers and a baggy t shirt when they were alone in the bedroom, displaying rows of dark spots that crawled up and down her inner arms. She would circle them with her fingers, dancing from stepping stones with her forefinger and middle finger and sing little nursery rhymes for her children. "Round and round the garden..."

As they bounced on the bed, Brooklyn complained that it was squeaking too much, so they all slipped under the depths. She worked the wire, whispering in hushed voices about monsters that live under the bed, and gradually worked a long piece from the mattress. She curled the end into a hook and leapt out, shouting in a pirate voice for the children. Ethan laughed and tried to grab the hook, but Jacob screamed from the fright. Before she could soothe him, Brooklyn had pinched his cheek, wobbling it around so his shrieks warbled.

"Shut up, pup! You just got a fright!"

She pulled him from Brooklyn's fingers, holding him to her chest, kissing his cheek, wondering if it was sore. Their roommate was boisterous, maybe that was better for boys. She never could stand these rough games, but Brooklyn could keep up. Ethan was amused trying to catch the wire that Brooklyn would hold out to him and snap back at the last minute, then giggle, her long legs tucked underneath her like a bow, her panties painting a white daub against her brown skin.

Once, she tried to wander the corridors dressed as such but was given a 'check' the first time, so she kept her undress to their bedroom.

Checks were used to discourage rule-breaking in the halfway house. Each misdemeanour led to a check and once there were three next to your name, that person wasn't allowed to leave the premises.

"In order for you to stay here, you have to be actively looking for work," said the receptionist. She was a pretty woman, with a shiny watch and washed hair. "So, you need to be going for interviews. I have a list here." The skin on her face was sort of powdery and undefined, probably with some expensive makeup that melted flawlessly over her clean skin.

Honey glanced at the piece of paper but found her face far more interesting. "I don't know how to do anything. Except for fuck."

The receptionist's bright eyes flicked up, momentarily shocked, but she composed herself quickly. "We don't swear here. I'll let it slide, but next time-" She scrunched her lips, wrinkling the lipstick. "Well, there are plenty of things that you can do, you just don't know it yet." She circled two blocks of text on the piece of paper and pushed it across the desk. "How about you go and think about it and come back to me tomorrow? I know this can be quite stressful," she added with a tilt of her pretty face and a smile supposed to be warm.

As she turned to return to her room, the woman said, "Honey?"

She pivoted. The painted face was strained.

"You know you don't have to use your hooker name, right? What's your real name?"

"It's Honey. Craft. Honey Craft."

The receptionist wrinkled her lipstick again but nodded. "That's nice, then. I was going to say, maybe consider who is going to take care of your children? We work with lots of adoption agencies and foster programs for mothers who are out of their depth."

Honey felt her lips press and open together, the muscles around her jaw working the air to no effect. Lips were instruments of sound and Honey had no sound. Her children were her children. Ethan and Jacob had always slept warm, but a barrier had gone up in her brain that stopped these thoughts from reaching her voice box. She turned away, bowing her head to the floor as though blinded by the sun.

Back in the room, Ethan and Jacob were playing with Brooklyn on her bed. She had given them little capes using their bedsheet and a towel and they were using toilet rolls as magic wands. There were only two towels for the four of them, Brooklyn had the second draped over her shoulders and was waving the twisted wire like a fairy wand. The shelter said they never had enough of anything; that women often took them when they left. Jacob had no concept of magic or wizards but shrieked with delight, all the same, the little white shreds of paper wiggling as he shook the roll.

The sight warmed her heart and she dropped the paper on the bed, preferring to chase her three-year-old who was

stampeding across the floor, gaining momentum and crashing into the wall to stop himself. Brooklyn pointed at the piece of paper that had fluttered to the floor and Ethan went to pick it up and bring it to her, like a game of fetch.

"Oh, the job stuff. Yeah, this shit is the pits," she said, her eyes flashing over the words. "So? Which one are you going for? You can't delay for long, I already tried that." She leant back and flicked her finger. *Check.*

Shame prickled over her cheeks and she burrowed her face into Jacob to hide it. "Didn't really look."

"It's bullshit, that's what it is." Then, in a high-pitched voice, she said "Broken ribs? Don't take the time to reattach your body parts, go get a job, slut!" Then flopped back onto the bed, the sheets untucking themselves from the force. "This place is making me crazy. Not that it's much better than the last place." Brooklyn's hand toyed with her t-shirt over her ribcage. Honey admired her strength to stay upbeat when she had so many of her own battles she was fighting alone.

"We both have people holding us back," she continued, speaking towards the ceiling. "My mom said I was born for the child benefits. Once the government stopped that, I was finally what she said I was. Good f'nothing." Lifting herself onto her elbows, she gazed at Honey, her mouth open like an 'o', as though waiting for Honey to speak.

"Oh, my mom spent all our money. She sent me to Shelby while she got some." She shrugged, a movement she tried to keep casual, but her shoulders jerked. "Never came back. No word."

Grannie Cherry had so much money, her mom always used to say that. In fact, Grannie looked as young as her mother did when the money ran out. Then she started to look old fast, like in a movie. Grannie said she had no more money for her injections and after she died, so did her mother's love, as empty as her purse.

Brooklyn wanted to know about Shelby, but his shadow was still dark over her memories which she had spent her few days of freedom locking away. He was big. He got what he wanted.

"It's those people we have to put in the past," said Brooklyn. "They're holding us back."

"I don't know how to do anything."

Her roommate leant up on her elbows with a queer expression on her face. She was about to suggest something

against the rules and was assessing whether Honey would be on board with the fun.

"Ask me," said Honey, hoping for a little doorway to escape all this. Her birdcage was once the brothel with its rules and dinge. Now it was the safe house which was a little larger but still felt quite the same. Less dingy. Regular meals.

"I been trying this charade for a while now. But- wanna just get out of here?"

"Go to another shelter?"

"Nah, get out of Detroit. Screw this city. Screw all cities." She flopped back down again, pulling out a twist of her hair and letting it spring back in place. "I got a brother. She went to live in some forest and I thought she was mental, but now I kinda think she had a point."

Outside their window was no grand view or inspiring mountain. The air was full of Skycars with blacked-out windows inching towards their destinations, though they probably moved faster than it looked on the ground. They followed similar pathways in the air, flying over old roads and occasionally one would descend in front of her window and trundle on hidden wheels to the building opposite. On the other side of the runway road was a charging station with a corner shop. The sign above it, lit with a flickering bulb, said 'Regular Charge - \$0.56 per kWatt. Express Charge - \$0.98 per kWatt.' Each charging station that was out of service had people huddled under it. The view was grey and saturated with automobiles, except for the solar panels that winked in place of the stars and the poster under the bus stop with an overlapping blue circle and a red circle. She did not need to know how to read to understand that this poster was advertising the express shuttle between planets. A journey to another world. A competition had been held on a radio station for a return ticket to the Martian tourist centre. The bus shelter didn't seem like the obvious place for an expensive ticket, so it was probably for a radio or blog competition.

The first day she had arrived, she thought it was something just to be able to look out of a window as long as she wanted. But this view, whilst precious as her first free lookout, was easy to replace. The thought blossomed shyly in her mind, growing more confident with each step her children took. If their bubbly voices could cry unhindered in the open, with grass under their feet, and if she could leave the house

without fear, surely that place was worth breaking a few rules for.

Brooklyn waved the piece of paper at her, the red circles waving in and out of view. "Unless you want to go be a postal drone monitor? Or-" she searched the text, "a taxi rank monitor."

Neither of those seemed so bad to Honey, well within the realms of what she could do. But the idea of something simpler was pollen-sweet.

"How do we reach your brother?" she asked.

**CHAPTER 29**  
**EARTH, SPRING, 2250**

"Can't we wait here for you to bring the car around?" asked Honey, looking at her children. She couldn't count on them to stay quiet.

"You've got to embrace your freedom! Take it back from the people who've kept you down. Come and grab it with me."

"But what if you can't start the car?" The thought of more people like the receptionist pinching their lips at her made her fists itchy.

"I've done this before. It'll be easy." Her wrist flicked away each concern like it was a mere gnat on a summer's day, but Honey felt that she would be more relaxed had Brooklyn shown a hint of concern.

No one could keep tabs on every woman at the shelter at all times. They showed face for dinner and ate well, needing their strength for the evening. When they got back to their room, they closed the door and pressed the beds against it, wedging it. It wouldn't stop anyone, the barricade was too light, but Brooklyn was satisfied they would have enough time.

Honey was the first to climb through the window, then Brooklyn passed Jacob to her, who she tied to her back with the towel. Then Ethan who would have to walk. Brooklyn had no problem slipping through, despite how tall she was, and they darted across the runway. Honey found herself giggling. She imagined that they looked like a secret agent duo, even if she just projected Brooklyn's beauty onto herself. Without a mirror to check, it was easy to imagine they were two famous actresses escaping an evil lair. As they hid behind a row of bins, she almost felt thrilled.

Brooklyn pointed to a car with an open window parked at the back of the garage.

"That belongs to the kid who works here. He won't notice for ages."

She darted out, but quickly ran back, eyes wide with greed as a white Skycar drove into the parking lot. Brooklyn hissed, her eyes dancing at the better prize. A man stepped out and stretched, pulling his trousers up where they had sunk down his waist, before plugging his Skycar into the charging socket. Once the charging had begun, he hobbled into the station around the front.

"Nice and slow," said Brooklyn, delighted at the turn of events. She ran across the lot as soon as he was out of view, whipping a long, thin metal rod from her jacket, the one she had pulled from under her bed. At the driver's door she forced the rod down the window slot. There was a click and she pulled the door open. Easy as if she was getting dressed in the morning.

She had done it. Or so Honey thought. An alarm wailed through the empty parking lot. Jacob, who had been sleeping against her back, jumped, nearly unbalancing her, and began to wail. Not waiting for Brooklyn, she ran back towards the shelter. Across the dual carriageway, dragging Ethan, who could only just keep up. The alarm drowned out her thoughts and her slapping feet against the tarmac.

A car honked at them and she turned in time to see two blinding headlights. Ethan screamed but Honey couldn't even manage that. Her entire family might be ripped from her. The Skycar swerved and held down its horn as it sped up the runway.

Panting, they made it across the strip and were standing outside the halfway house. She couldn't tell which window she had climbed out of since Brooklyn had closed it behind them. Each one looked the same. She crossed them off. Dark interior, lights on inside, blinds half drawn, trying to remember how they'd left the room when another horn beeped twice. The Skycar had pulled up next to them, its alarm silenced. She grabbed Ethan and pulled him close to her body and he clung to her leg, reading her fear if not understanding it. If the owner of the Skycar took them to jail, she would regret this stupid decision every day of her life that she was apart from her children.

The passenger door opened, and Brooklyn yelled: "Get in!" She was sitting in the driver's seat. Honey nearly wept.

Ethan needed no further encouragement, running towards his new friend and clambering up the steps onto the front seat that stretched across the whole length of the Skycar like a sofa. Recovering from her shock, Honey hurried behind him, tugging Jacob from her back and placing him on her lap.

Without waiting for them to get comfortable, Brooklyn jetted up the road, lurching them around until they gained their balance, charging through each traffic light.

"That was amazing!" Brooklyn laughed. "The way you ran when the alarm went off."

"I thought we would be caught," she said. Only now was she registering that they were in a Skycar leaving the city.

"Nah, those alarms go off all the time, no one bats an eyelid let alone comes to check."

Feeling foolish, but safe, Honey tucked the well-worn towel around Jacob who was being rocked back to sleep by the vibrating vehicle. She felt a little guilty for taking it, thinking of all the women who had wrapped their abused bodies in its fabric. Each thread was coarse under her fingers as she stroked Jacob. It took Ethan a little longer to doze since he was so excited. He kept trying to touch the gears and dials, but Brooklyn kept slapping his hand away and laughing, swerving slightly each time she did so until Honey finally pinned him to her side.

"Moooom, I want to see the Skycar go!"

"We'll still be driving tomorrow, My Prince!" said Brooklyn, giving him a wink in reference to their earlier game. "I assure you, you'll be bored by it by tomorrow night!"

Once he stopped squirming and was snoozing, Honey's irritation dissipated, and she was in awe of the peace that had bloomed in the front seat of the stolen Skycar as it drove out of the dirty city.

It took Honey a while to realise that Brooklyn was driving with a steering wheel. Usually, cars were self-driving. Although she had rarely been in self-driving cars, she had never been in a manual car. Now that her nerves had petered out, she noticed that the space where the computer usually was had been gutted and a camera facing the interior of the Skycar had a sock wrapped around it. When she ran her finger around the jagged hole in the dashboard, Brooklyn said "I chucked the computer in the parking lot. This thing has a

manual option in case someone steals the computer," she tapped the dashboard.

Their illegal trip took them further from her home than she'd ever been before, further than she could remember. For her children, this was definitely true. Ascending away from the built-up city, Honey felt as though her old, polluted layers of skin were peeling off and she, small and fragile, was escaping. As the Sun peeped over the horizon, her skin glowed the gold of the sap from a freshly tapped tree.

A memory burst forth of her grandmother planting a new tree in her garden. It was the last time she had really considered nature and 'the outside' but otherwise it hadn't grown thick in her own troubles. After grandma and then mom had passed on, her troubles had rarely extended beyond her own body, let alone the colour green. These old memories stirred, like sediment at the bottom of a lake.

Brooklyn stopped once for everyone to relieve themselves at a charging station. Brooklyn tossed her hair as she debated whether to pay the extra for the 'express' charge or save money with 'regular', but it would take twice as long to charge the battery. In the end, she chose express. The children were excited, wanting to run straight into the shop, but Honey didn't want to leave the car.

"You coming?" Brooklyn asked, helping the kids out of the car.

"What if- what if we're caught?" she whispered, not wanting to scare her children.

"We'll be fine. The chumps who work here don't give a shit who comes and goes."

Honey took her time all the same. Making sure the door was properly closed, then zipping up her donated jacket all the way to her neck, then checking her hair in the mirror, until Brooklyn grabbed her arm and led her straight through the glass doors. They opened at her command, leaving her sons wide-eyed.

"It really is magic!" said Ethan, who waved his hand in imitation.

Brooklyn laughed, grabbing them and leading them to the toilets. "You can play with it later, we have places to be!"

In the shop, Ethan wanted to grab everything and Jacob, with his little waddle, copied. His outstretched arms grasped at enormous crisp packets, shiny like treasure, and Ethan picked up each chocolate bar, rubbing it, feeling their smooth

surfaces and the knobbly texture underneath, enraptured by the spell of never having anything and suddenly having the world within his grasp.

"No, children, we can't take those," said Honey, putting the bars back, cramming them on the shelves, desperate not to make a scene. She would have loved to buy them everything they ever desired, but she hadn't any money.

Her youngest began to cry as she ripped the bag from him and picked him up. She ran out of the shop and he only screamed louder, kicking and thrashing as Honey, the worst mother in the world, took him back to the Skycar. It had transformed into yet another prison for them. Telling him to stop was useless, but he was drawing attention to them and she was certain the greasy girl behind the counter was giving them funny looks.

Eventually, Brooklyn strutted out. Ethan held her with one hand and the other was wrapped around the enormous bag of chips, its bright yellow seal glinting in the sun. He didn't look so much happy as overwhelmed, his eyes wide and bright as cherries and his gummy lips hanging open.

Instead of getting straight back into the Skycar, Brooklyn pulled open the rear doors. Light flooded the Skycar as she opened the rear doors, illuminating the dark contents. "Kids! I think we have found a palace!" she said, and they ran out to have a look inside with her. There were chairs stacked on an old sofa, boxes of clothes and sheets and towels along with some other odds and ends. "Honey, help the princes rearrange the furniture, I have to finish off our disguise."

She helped them clear room, so they could access the sofa, which they jumped on, kicking up dust until she told them to stop. Ethan and Jacob cuddled around the open chips, shoving crumbed fists in foil treasure chest and cramming the oily slices into their mouths.

Brooklyn took out a little tube of black paint and a brush from the plastic bag and made some adjustments to their number plate.

"I saw it in the store just now. I thought: it might not make much of a difference, but if it fools a camera then that's good enough for now. As long as we can make it to my brother, we'll be fine, and there shouldn't be many cameras now we're out of the city."

Then, they looked through the clothes and picked out some pieces to change into although they were all far too big. Ethan wore a forest green sweater covered in smears of white

paint that went to his knees and Honey rolled the sleeves back three times, so he could use his hands. Jacob satisfied himself by climbing into the bag and nesting in the clothes, feeling their many textures and squealing.

With Brooklyn back in the driver's seat, she opened a can of something that said, 'Ghost Power' and downed the whole thing, offering Honey a can, who cracked it with a thunk and tried to swing it back just the same. It was awful, like a punch to the taste buds, and she spluttered green liquid over the wall.

Brooklyn cackled and said, "Easy there, Honey bear!"

"It's not that bad."

"I have water if you don't like it, give it here." She plucked the can and downed that too. "I gotta keep my energy up, we still got a long way to go!"

With a new kingdom for the Princes, Honey in the back with them and Brooklyn at the wheel, she turned around and said: "Ready, my Princes?"

"Yes, Aunty Brooklyn!"

"Bookie! Yes!"

Honey contained herself for the moment, but as soon as Brooklyn faced the windscreen again, she let a smile burst over her face and tears fill her eyes. Never had someone shown such kindness to her little patchwork family. She kissed each son and looked forward to giving them all her attention in this rattling playpen with their saviour at the wheel.

Brooklyn relaxed as they drove closer and closer, but to where she wouldn't say, just that her brother gave her directions. The Skycar left the city and the suburbs and flew over greener land with fewer buildings, only stopping to use the bathroom or buy the children snacks. The fields became wilder as they flew more remotely, field turning into woodland. Brooklyn was a natural navigator, never stopping to check directions. The natural splendour had nature's effect on Jacob who loved the colours and, once reminded of the name, would repeat the words 'tree' and 'green'.

Their Skycar descended into a clearing. The space opened to a magical realm, it could have been built with magic, with winding pathways leading to secret areas of the woods and thick grass underfoot, overwhelmed with such brilliant colour. Honey felt bewitched. She thought she had known what a tree

was, even arrogant enough to have known a garden. Under the shrouds of so many trees, more than she had ever seen, she was humbled at their magnificence. Grannie Cherry's tree had just been in a pot on her balcony; something she only remembered when overwhelmed with a forest, and at that, vividly recalled the balcony was so small with a view of the other skyscrapers opposite.

Instinct told Honey she should be afraid, but the environment told her something else. Never did she remember being surrounded by so much nature.

Small tents pocketed the treeline, as though the people who lived here worked alongside nature, using what was here as their foundations. Brooklyn stopped the Skycar and leapt out as a man ran to them. He could have been Brooklyn's stunt double – a beautiful man who Brooklyn did not hesitate to embrace. It must have been her brother, London. The sight made Honey sniff and she buried her face in Ethan whose new jumper smelt of sharp paint.

The Skycar doors opened and light flooded the space that Honey had lived in bliss with her two, bickering children for the last few days. Ethan, who had been fidgeting with the desire to leave the confines of the Skycar for the whole time, burst out, but he stalled at the openness of the clearing. Jacob stayed next to her, grasping her clothing as a comfort blanket.

Lifting him, she emerged, and London helped her as she stumbled, her knees collapsing hard on the step to the soft ground. He embraced her tight and whispered, "We are so grateful to have you here, thank you for bringing my sister home."

"Home?" said Honey.

"Home is wherever we are together," he said.

The sentiment was full-on but touching and Honey smiled. There were people running out of tents to see what the commotion was. Ethan was enticed towards another crowd of children who invited him to play a game. Jacob started out shy but grew envious as he saw the fun being had and squirmed until Honey gave him a nudge and he ran off to join the debacle.

Food and water were brought to her; a bowl of curried vegetables and a slice of bread that, when dipped in the sauce, felt soft in her mouth with an explosion of flavour as bright as the sun through the forest canopy.

Every person there was so eager to meet her and so kind to her and her children that Honey felt some of her old suspicions released. She was not the only one who had escaped; some people had fled gangs and the gangsters who threatened to kill them before they could leave, others had run from the shackles of abusive marriages and sometimes bringing their children with them, the ones playing so joyously in the forest that they called the Arms of the Earth. One man had become so in debt gambling to repay a loan shark that he'd walked the entire way dressed as a homeless man.

"They're our shackles," said Brooklyn, nodding, "or rather, they were." Her fingers fanned out as she pushed them through the grass and Honey reached out to squeeze them. Brooklyn was closed off about her past, the hostel was the last place she had spoken about even her mother. Honey hoped that she was finding some resolution to her past amongst these people, the Children of Earth.

They learnt how to weave baskets and cut vegetables for large curries or soups, how to dig soil for planting food and, for Honey learning something more important; how to connect with her planet. Ethan and Jacob also flourished in the forest, their limbs growing strong and their faces flush and full of health from exercise and play. They were also schooled in a little schoolhouse in the forest where some of the members were the teachers. There were even stories of the best Children of Earth going to university, paid for by the innermost circle of the group, a sum that Honey could never have dreamt of before. It filled her with hope to see that maybe even her own children might have a chance where she did not.

Not since her arrival had she seen London, the brother, except at a distance. It turned out that he was the leader of this forest, higher ranking than Honey or Brooklyn, and higher than even those who had taken tests to prove their commitment to the cause. However, London was not the most powerful, for Brooklyn told her that there were many other havens dotted around the world and it was only once you took certain tests and made certain sacrifices that you were elevated to the rank of Earth Patriot. Then you were privy to this secret information, along with much other ancient knowledge. London had taken the sacrifice and now managed the forest, including giving lessons to all those in the forest.

Only once did she feel doubt, and that was when she saw the first gun on the premises. Patrolling just a little inside the forest, a man rested a black gun in his arms, looking into

the clearing and out into the thick forest, then moving on a few steps. An old source of terror for her, she ran straight to Brooklyn, through a path in the forest and collapsed in front at her feet.

"There's a man," she panted, "with a gun. We have to go."

Instead of fleeing, Brooklyn swatted her around the head. "Of course. Is your brain full of rocks? You heard about all the people we're hiding from here." Honey got to her feet, though they wobbled, and she couldn't look Brooklyn right in the eyes. "They're protecting us. Why do you think we can all sleep soundly at night? How many people want to find you - Shelby's enemies? The halfway house? The police after you stole that Skycar?"

Honey was about to protest, but Brooklyn sometimes slipped up with her words and ridiculed Honey when she pointed it out for being such a word nerd. Besides, the police would be chasing her as well as Brooklyn, who had broken into the Skycar and driven it.

Like her relationship with her surroundings, the Forest of Earth forced her to reconsider her relationship with guns. Both had been a source of fear, but they were turning to sources of comfort.

**CHAPTER 30**  
**EARTH, SUMMER, 2250**

"Our Mother knew what weapon we'd need to defend our planet. They gave us more than a clue, they gave us a sign. They named the planet Terra, knowing that as the generations passed, this word would mean something new. Terrorism is not easy to stomach. But it's the answer that's been calling to us. On the planet called Terror, are we justified, obligated even, to use our namesake that our Mother envisioned to protect our people at all costs? Nobody uses her name lightly. It takes courage to speak it. It takes a hero to embody it.

"Don't be deluded into thinking that anybody who lives on Earth loves Earth. Martian sympathisers exist amongst us on The Mother Planet. They are in your offices, they are on your streets. They might even be in your old homes. Their voices scorn the true cause. *Her* cause. They oppress your voice. Persecute the truth. Make you feel powerless. Well, we can reclaim that power. Let's start right now!

"Remove your shoes! Yes, I will remove mine too and be down on the grass with you. Feel Her power flow through you. The energy that starts in the soles of your feet, that spirals up your legs and invigorates the core. Close your eyes if you need, or look at the trees, look at the people, her children, all around you if that is your way to enlightenment."

London was mesmerising. There was so much of Brooklyn in his face, but also his manner and the way he spoke. There was something else though. He spoke with the certainty of a man who knew things others didn't. It was magnetic. The gathering stood, removing their socks and shoes, and pawed their feet in the mud. Some had rejected shoes altogether.

"Windy days are the best for this," said London, who had stepped down from his podium to stand in the soil, "for that is when Her symphony is the strongest. Wind plays with the trees, instruments of the Earth, and Her voice, the wind, is the strongest."

Honey concentrated on the tingling in her feet, closed her eyes and lifted her arms, opening herself to the flow of Earth. Feeling whatever it was that She wanted her to feel. This new way of existing was challenging. She felt self-conscious, yet, when everyone was focusing on Her, she knew there was no need to be embarrassed. If she had the urge to hum, she should. If She gave her the urge to move her body, she should follow Her lead. When she desired to pant, to pass Her air through her throat, she should.

London said that he had panted until he fainted once.

"Can you feel Her giving you power, guidance?" he murmured, his microphone attached to his face amplifying his voice so everyone around the heath could hear. "Remember, some call us radicalised. Radical does not mean bad. Jesus was a radical. Che Guevara was a radical. Nelson Mandela was a radical. Non-believers throw it around as an insult, but they don't realise it gives us strength. It takes a radical to change minds. Never forget what you are, and you can't be hurt by the ignorant."

The meeting ended, and he stayed in the orchard to greet any Patriots and answer their questions. Most of the Patriots who sat in their spot at the front went to thank London first and then ambled into the woods to wash in the stream. Some offered him thanks for the session and he held their hands and they shared their energy. Sometimes they would hug and revel in the wonders of the Mother. His gatherings had become more popular after he had been promoted into a higher sphere of the Earth Patriots, and he took the time to greet the familiar devotees. Then, the second tier of unconfirmed Patriots could come forwards.

Hovering near the back of the greeters, Honey waited.

As the crowd thinned, she lost courage and fell back to collect her shoes. When she turned back to call Ethan and Jacob, he had dismissed the rest of the crowd and approached her.

"I couldn't allow someone in need of guidance run away in fear."

His honesty took her by surprise. She ducked her head and pulled at her hair. A flower fell loose, a daisy, then she remembered her children had placed them all through her afro. It had grown full and healthy now that she wasn't always tugging it out. "Like a garden, mom," said Ethan. So, they'd 'planted flowers'.

"Oh, I forgot they were there," she said, trying to shake them out.

He took her hand and guided it away from her hair. "They are expressive. Lovely, really. Keep them."

"Honey, child of our Mother," he began, squeezing her hands, "Tell me what fills you with fear. Let those feelings into Terra, share the burden. We will turn those fears into courage together."

Her eyes shone with comfort and security that she had not felt for a long time. Closing her eyes, she summoned her strength and eventually spoke. "I don't think I can do the things She requires of me." Her voice broke and tears threatened to spill down her face. She tried to tug herself from his grasp, but he took her hand again and said: "Let Earth receive your tears. This sorrow is not your burden to bear, you are not alone. Tell me why you are fearful."

Where to begin? The life they had left behind? She wanted as little a reminder of that as possible. She would not cry for bringing her children to safety. Breathing, she let her tears fall, as it dawned on her that safety wasn't what she had imagined. "Guns. I've never thought of killing others to protect myself before. They frighten me."

He nodded earnestly. As though this was the normal path that newcomers trod. "This concern is a large one. Thank you for sharing it with me. We can overcome it together."

Raising his arms, he greeted Ethan and Jacob. She encouraged her youngsters to thank him for the teaching. Grasping their pudgy hands between both of his, he murmured a phrase for each of them. "Mother, if ever your child is in need of guidance, may she remember that she need only breathe your air and you will nourish her with your wisdom. Mother, if ever your child has joy, remind him that you share in his triumphs and rejoice in each breath of laughter, for you enriched the cells of his success."

Each child murmured a 'thank you' and backed behind her.

"Let's combine our energies," he said. Inviting the children to hold hands in a little circle, he said, "Honey is

feeling doubt on her path. Let us all take a piece of her fear and lend her our joy."

Sharing her burdens had never been a habit of hers. She was learning, but each time it felt like peeling back a hangnail. They stood together, the children with their eyes closed, one of them making yelping noises like a puppy. They had learnt to express themselves whenever they felt the urge and her children, who had learnt to be quiet, blossomed into their new freedoms.

London never broke eye contact with her. His eyes were lined, but from expression not worry. Her own eyes looked tired, framed with wrinkles that were a history of worry; she had seen her face in a mirror in the full light of day for the first time in a long time. It hadn't been a happy day. Her big, brown eyes flicked away from his gaze, but soon she became bolder and accepted his intensity.

Her cheeks flushed as he gazed down her body. "Don't hide from your feelings, Children of the Earth, for the Mother gives them to us. Even discomfort is pure," he said. The other child began howling like a wolf at this, raising his chin to the sky and scrunching his eyes shut.

That ferocity. That gaze. "The Patriots before us knew, when they named our planet, that it would come to mean something new. Etymology, language. It is merely linguists and scientists trying to remove faith in our cause. Terra knew that this sound would become the word of our salvation. Terra knew that our reality was going to be difficult for her children. Language can't explain the power of the Earth."

Increasing his grip on her son and daughter, he took in a deep breath and bellowed up towards the sky, filled with the air that let Mother's children hear each other's voices. Yelping and howling accompanied him, then a joyous laugh, Honey's own. The entire situation was absurd.

Releasing the children, he grabbed her by the waist, pulling her against his body so she could feel his erection. Tension filled her body, but she did not push him away. She glanced around the clearing, but the other revellers had returned to the campsites, or to wash in the river, as was traditional. His fingers slid down her back to unbutton her skirt and she grabbed his arms to stop him.

"My children-" she began.

"Terra will guide them where they need to go," he said firmly, though not unkindly. When she glanced at them,

motionless and wide-eyed, she shut down her Earth desires and pulled herself free.

"I must wash. We must wash," she said. "I am uncertain, but I will share my feelings with Terra. She will help me," she said, smiling. "Thank you." Taking her children by the hands, they turned to walk through the woods towards the river.

Behind them, she heard heavy snorting. Wolfish. She glanced back at him and his eyes closed as he took deep breaths through his nose.

**CHAPTER 31**  
**EARTH, SUMMER, 2250**

The water was clear and fast-flowing. Honey helped her children submerge themselves and got them into dry clothes, so they didn't catch a chill. Water swirled around her hips, still deep enough to drown and too high for her youngest to stand. Focusing on the silt between her toes, on the granules of rock and other wriggling thing, weeds and worms, she let the power of the earth flow through her. Gooseflesh burst over her skin, her chest spasming from Her presence, and she ducked undersurface. The current pulling at her doubts.

Cleansing was important after a gathering. A ritual. Designed to focus the mind on the next challenges ahead, and for the Mother to wash away unnecessary emotions and focus you on your path.

Honey came up for air, shivering and coughing. She gazed at her children, who were playing with the weeds on the bank. Their distraction with play made her wonder whether they were concentrating during the gathering. Further upstream were the tested minds of the true Patriots who washed and ate and worshipped away from the untested. They looked peaceful in the water. Would her children ever find that discipline?

She scolded herself.

Realising her mind was not focused, she took a deep breath. Warm air filling each little air sac in her lungs. The energy of the Earth passing through her bloodstream. With new concentration, she slid under the surface and, with toes dug into the mud, felt around for the answers.

Earlier, she had been concerned about the gun. Now, that fear was mixed with a new feeling, tainting it like blood. Desire. Streams of water slipped around her arms, caressing

her belly, forcing her into a protective pose to keep body heat. London had noticed her. Grabbed her. She knew what it was to be wanted, of course. She had two children, but it was lonely. Maybe Earth wanted her to find true companionship. Showing her that she was desired, that she need not take on life's trials alone. There was an entire family upstream bathing with her.

Forgetting she was still underwater, she took in a breath through her nostrils, and immediately woke from her trance. The water burned through her nose and down her throat and she coughed. Sucking in another breath involuntarily, she pressed her heels down and pushed up, choking as she broke the surface. Her children gazed at her in wide-eyed alarm. Her son standing up nervously, as though waiting for permission to help. Waving her hand at him to stay down, she hacked up water, grabbing for the bank. Wheezing until she could breathe again, she crawled out and wrapped herself in a towel and lay there until she felt warm again.

The forest haven was miles of fun, especially for the children but also for Honey. Each path had been hand-cut, so the paths between groves were thin and winding with daubs of paint of ribbons wrapped around them to show the way. Soon, she figured out where each path led, though there were some places that the 'saplings', as the newest people were called, were forbidden from going. Honey tried to peer up those lanes, but the paths wound around themselves, so she could see only trees.

Each time her children ran around the trees, she would beckon them back: Brooklyn had warned her that the forests were dense, and it was easy to get turned around. Besides, there were wild animals in the darkness.

Even knowing these warnings, Ethan wanted to go into the forest, as though unable to resist the novelty of pushing his boundaries. He pointed to a glimmer through the trees on one path and promised that it was one of the groves and that the path looped around on itself. Folding under his will, she kept her eye on the glimmer and the three of them went off the path, into the trees. Each step was muted on the carpet of pine needles and undergrowth. It was darker and quieter, faint sounds of people permeated the forest but only if they were especially loud.

Whispering made Honey look around and take her eyes of the glimmer of the grove. She grabbed Ethan's shoulder and

made him stop. What if it was a patrol? He might think it was a wild cat and shoot them all. Ethan squirmed under her tightening grasp.

It was London, she recognised the back of his head in the distance, talking to someone with a serious expression, his gestures curt and so removed from his controlled speech he'd given earlier that day. She trod carefully until she could see who he was talking to. It was Brooklyn. Brother and sister shared urgent hushed tones, but about what wasn't Honey's business. Still, their shared fever entranced her.

Ethan burst from her arms and trampled through the brush and London looked up, his eyes widening, but as soon as he saw Honey, his expression turned warm. Pushing Brooklyn towards her, he headed towards the river, presumably to cleanse himself.

"You shouldn't go off the path," said Brooklyn, winding round trees to reach her.

Instead of arguing, Honey found it easier to say nothing. Instead, she patted Jacob who followed Ethan, though his legs were smaller, and he grew frustrated that he could not pass as easily through the tangles on the forest floor.

"What were you talking about?" asked Honey, who disguised her curiosity by following her children's path to the grove.

She did not answer straight away, as though she was evaluating how Honey would react. Eventually, she said "You."

It was so surprising that she believed it must have been the truth. "Me? Why?" Her last conversation with London had been one of intense discomfort, maybe he was angry with her and was told Brooklyn.

"He-" she stalled, as though phrasing delicately, "thinks you show great promise." She shrugged.

"But you two looked very serious."

"I don't think you're ready."

"Ready for what?" the admiration of London overcame any doubts Brooklyn had.

"The next level. He says your honesty to your heart is pure, but I think you need more time." She glanced up.

"Sorry."

"No, no," she muttered, taking care to crumple every leaf underfoot. It was satisfying to feel believed-in. She had not felt ready for anything more, so in that sense Brooklyn was right, but if London believed in her then that was enough to lift her head from her feet to the horizon.

They entered the grove where Ethan and Jacob had fallen on the grass were rolling on it, giggling.

Honey turned to Brooklyn and said, "Why do you think I am not ready?" She drew power from her bare feet, the long skirt she had been given fluttering at her ankles. She, the mistress of her own body.

"I'm selfish," she said eventually. "I don't think I'm ready. I can't face you leaving me."

Honey's fingers found hers and squeezed, starting to feel that she was embracing what it meant to teach as a mother. "You saved me, Ethan and Jacob and mostly, yourself. Maybe your doubts come from somewhere else, but I will always think you are ready for the next level." *Next level.* She liked saying that. She was ready for the *next good thing.*

Days at the camp were filled with meditation, body training, fasting and general chores they did on rotation. Repetition and discipline became familiar and comforting, and Honey was content to let Earth scrub away her sour tasting memories and embrace this new way. Here there still weren't enough towels to always go around, but there was no judgement either.

After she bathed herself and allowed the river to organise her thoughts, so they all pointed in the same direction like strands of seaweed, she was sure. A perfect man, he was not. However, he was patient and understanding, intelligent; he was a different class to the men in her past. That night they sang, and she helped serve food for the other Patriots and then washed pots with Brooklyn.

"You seem so comfortable here," Honey said, drying a plate.

Brooklyn made a point of surveying the trees around them. The dappled light shone pink in the dusk, playing with skin like an artist. "I know it's where I'm meant to be." She smiled at Honey, her expression soft. "And I know I was destined to be your chariot. How could I not be happy?"

"Thank you, again." She tried to catch the joy, like an infection, but didn't feel as at-home as Brooklyn looked.

"You know, I'm kind of scared, right?" she asked. "My brother's such an inspiration for everyone. They're big footsteps to follow." She filled her cheeks with air and puffed it out. London had helped the children take their food and now sat with them on a bench in the green, telling stories

and making them laugh. "But he's taken a liking to you! Says you're the follower who is the most honest with herself."

"Really?" She glanced at him. Ethan was perched on his knee, playing a game with some twigs. The inner circle ate separately from the new recruits, but London had privileges to bridge the gap as he had been granted high status within the Patriots.

"Yes! And he says that sometimes new recruits don't express their worries because they think that perfection is never to 'err'. But London knows that those people will have a harder time later."

Honey put the plate down on the pile and reached for the next wet one that Brooklyn handed her. As she wiped, she felt a knot in her mind loosen. Permission to worry. Permission to be normal.

Once the drying was done, she was not frightened to approach him. She had asked the Earth for guidance and this was the path that felt right. Generous with his time and his love. Honey could believe that the Earth might guide her to a man like that.

Waiting until the last people were done, she approached him and reached for his hand. Without words, he led her to his tent which had blankets lain over the grass in green-stained cotton. The green flecks pressed flat under the awning, subdued by many bare feet and sleeping bodies and Honey lifted her skirt to kneel, feeling the roughness on her knees.

It gave her shivers when he ran his fingers through her hair. The tenderest motion, stroking her as though she was a precious gem and he were made of silk. He teased off her clothes and worshipped her body.

She had not let herself be fully vulnerable under him but knew that she could learn to. Taking control of her own pleasure again, after years of letting face after face use her for their own, she stroked the clitoris between the hair that was growing back bristled after her days here with no razor. He leant over her while she touched herself to kiss her pixie lips and fondle her breasts. One hand on her pleasure, the other reached not for him but the bare grass at the edge of the blanket to rub each tuft through her fingers and press each pad into the dirt, massaging it with the rhythm of her body, feeling at one with a force greater than herself for the first time that she could remember.

As the moon drew its arc over the Earth, under it was their tent where Honey lay in his arms and they murmured and

kissed through the night. Clients had slept in her bed before, too drunk to be moved and on those nights, she would go to sleep with her children under the stairs. Never had she imagined that she would find safety in a place with no walls and now that she was wrapped in it, her children sleeping peacefully in their tent and someone who cared to keep them all together, she almost hurt she was so happy. They had a chance.

"Will you keep me?" she asked him, her head tucked in his elbow, a position that reminded her of her youngest who would snuggle into her own arm. It felt pure to find solace like a child.

"I was going to ask you the same thing," he whispered, planting a kiss on her cheek and holding her until she fell asleep. When she awoke, it would be anew as a Patriot in training.

Proving that she was a part of the Earth Patriots meant undergoing ceremonies to commit herself to the Earth and its cause. This included a period of isolated study and then a ceremony referred to as 'the Sympathy'. This was a rite that every Patriot had undergone. Though, when she asked London what it entailed, he was tight-lipped.

To prepare, she and Brooklyn were to be shut away in a stone building a long walk away from the camp, down one of the lanes that wound around itself. She hugged and kissed her children, but Jacob, in his new-found independence, was embarrassed by kisses. He preferred to play. When she tried to scold him, he slapped her until she let him go and ran into the forest. Cross and humiliated, she was rougher with Ethan than she was proud of, pulling him tight to her and only letting him go when he squirmed.

As she and Brooklyn walked, following black ribbons tied around the bark, she was upset. When she'd woken that morning, she'd imagined that this walk would be a spiritual collecting of her nerves. Instead, frustration was her companion.

Once the stone building, more a cottage, appeared between the trees, she drew back. Small windows. A heavy door. Memories cracked open, of locked rooms and never-ending darkness. Someone took her hand and led her in, though she cursed her betraying feet for both holding her back and for carrying her forwards.

In the cottage, there were two rooms they were permitted to use. A sleeping room, with straw beds, and a reading room,

with two wooden desks and two chairs. The walls were whitewashed and clean with a single strip light in the centre. The Patriot hung a thick, black curtain across the tiny window and forbade them from touching it. The coolness and Honey's prickling skin both contributed to the feeling that this place was where old lives were rinsed and blown away. If she didn't think that, then thoughts of other forbidden windows would make her scream, so she thought of those memories blowing away.

Breakfast and lunch would be brought to them; for the rest they would study the histories of many famous figures in Earth Patriot history. Brooklyn committed herself to her studies with a trembling lip, but her expression was steel. Honey knew she too was scared, but watching Brooklyn gave her strength.

Although there was one other barrier that filled Honey with fear. It reminded her of the halfway house and the snooty receptionist.

Honey couldn't read. Not completely. She learnt the alphabet once upon a time, but when the letters were in sentences, they danced around the page. The more words on the page, the more puckish they became. As hard as she tried, they leapt around, and she couldn't find sense or reason.

Another forgotten memory, of a green plastic ruler, flashed in her mind. One that a kind teacher had given her at primary school. Whilst the ruler tamed the letters into words, she lost the opportunity to read soon after receiving it.

So, when a Patriot handed her a book, she felt a prickle along her spine as she brushed its. She bent low over the book, pretending that each letter was pinned to their proper place, not dancing round imposterish. It was as though her mouth was sewn shut. Now that the study period was impossible to complete, she realised how much she wanted it. They would kick her out of the Patriots. The only haven her children had known. She hoped that London and Brooklyn would still want to see them. Maybe they would take her children in when they were older, despite their failure of a mother.

After a minute, the Patriot tapped her on the head.

"It's upside down."

She swatted it onto the floor. It slid across the stone, the pages folding in submission. A beautiful object she could never enjoy. She crossed her arms and looked at her breasts, despising the judgements from the Patriot and from Brooklyn.

"Many of our new recruits cannot read, there is no shame in it."

"Really?"

He left the cottage. There were the faint sounds of doors and jangling metal until he returned and placed a music player and a speaker on the table.

Their study would take a different approach to the new development, but otherwise Honey was to learn like any other Patriot. They listened to the stories on the cassette and repeated it for each other. Or, Brooklyn would read aloud to her and they learned together. Each lesson was long, six hours maybe, Honey did not know exactly.

A melodic tune played in the background to help them relax, but Honey found it was too effective. Whenever her eyes became heavy, Brooklyn would poke her, and she'd start awake. There were two hours of sleep after each story to process, then the lessons would start again.

It surprised Honey to discover that history was rich with Earth Patriot influencers. They were a persecuted movement. Suppressors who wanted to destroy their triumphs had altered or outright erased histories. It was a wonder that the true documents had been preserved in hidden libraries around the world. The Patriots had pieced together their histories again. Each biography began with a disclaimer that they were still learning their histories, like putting together a bowl that was smashed into a million pieces on a sandy beach, so some of the details were fuzzy. This made sense to her and she tried to remember that the Patriots deserved leeway for trying to plaster history back together when history wanted them forgotten.

Each Patriot fought for a worthy cause. They made the earth a little better even with actions that seemed inconsequential. Often, the true change happened after their death, reminding Honey not to feel downhearted if her path seemed to reap no rewards. Each Patriot had suffered too, the mortal realms of pain being of little concern to them. With each thrill, she felt a little more anxious about the Sympathy that was drawing nearer and nearer. She asked Brooklyn once how she felt about it. Brooklyn seemed a little anxious, which made her wonder what horrors haunted her past.

One story in particular touched her. Brooklyn read to her about a woman who had endured all Honey had endured. The description of each night giving her body for a different man

had not been the breaking point, she agreed with how the woman described how each face blurred into the same person and if you unfocused your eyes you could imagine he was a shadow. It was after she had found the Patriots that Honey felt cold and began to shake. The woman spoke about people who didn't hit her when she was wrong. A family who spoke to her softly when they disagreed instead of shouting and calling her 'whore' and 'slut'. Spoke of how much her heart was waiting to embrace these people who fed her from the same bowl they ate from and embraced her as though she were the most sacred of priestesses. The voice of this woman, channelled through Brooklyn, condemned the people from her old life. Had she not been received by the Earth she would never have known what love looked like.

On and on the passages would go, Brooklyn reading them in her quiet, low voice that was as soothing as a lapping tide or the whispering leaves. Honey would learn their stories and recite them until she was perfect, but she often felt inferior to Brooklyn who could memorise the texts much faster than her.

**CHAPTER 32**  
**EARTH, SUMMER, 2250**

One night, or day, Brooklyn had fallen asleep and Honey was on the brink, for she was always tired, there was a tapping at the window. Behind the forbidden curtain. It was so faint she believed she'd dreamt it, that her personal desire to lift the curtain was creating illusions. Then, the tapping came again, like rain drops.

*Brook?* She whispered so quietly she must have imagined it, but she did not stir. Did she want to wake her to let her know about the knocking or did she want to make sure it was a treat kept for herself? With a rustle, she approached the curtain and stroked it. As she stroked, she was overcome and palmed it, dragging both sides of the cloth through her fingers.

*Honey?* The voice was so quiet she wondered if she had imagined it, but it came again, "Honey?" and she pulled back the curtain to a world dark as shadows. London's face was outlined in sharp cuts by a torch.

It was forbidden for anyone to approach, but London was the leader here. Was that correct? Surely, if he were beckoning her then it couldn't be wrong. He pressed his lips to the glass and Honey placed hers where she thought they might meet.

There was a cloudy smudge left behind.

"Your children," he began, and she perked up with an energy she had struggled before to muster, "they are so good. Such good cadets. They are well and love you and miss you."

"Oh, I love them too, tell them, tell them I love them very much and will be with them as soon as I can."

"I have to leave, I shouldn't be here, but I'll be waiting to meet you when you emerge."

With that he was gone, and Honey could only touch the smudge. He'd stirred the feelings, though she wondered if as soon as she could was as soon as she could.

One morning she woke, weeping as Brooklyn shook her, crying for her children who had come to her in a dream. Her fingers pinched the empty space where their heads had just been, the pressure so real in her sleep. With one shake they'd dissolved into tricks of the mind.

"How do you stand this?" asked Honey, unable to raise her head to return to their table and continue their lessons. "How can you stand this?"

"Get up," she said, nudging her with her foot. Their feet were bare, their shoes abandoned at the forest entrance.

Honey longed to open the dark curtain and feast on the forest outside. To claw the hard membrane that separated her from her rebirth. But, touching the curtain was forbidden and now she longed to stroke its thick fabric. Anything but the table and chairs.

"Stop looking at it. You're searching for a comfort. Old comforts. Forget them, you're being regrown."

Curtains and windows had been forbidden in her old life too. They were never allowed to lift the lace covering that kept them private during the day and dared not linger even behind the lace. It was a struggle, her body felt hooked to the floor, but she lifted herself up and took her place on her wooden stool. The curtain burned the back of her head, but she began to chant, unprompted, and the burning soon went away.

"If it's hard it means you're getting stronger," she said. "These are the days that shape you. Everything before now was breaking the shell. Now, we will meet the real Honey."

"You remember the help you were offered in the halfway house?"

"Yes."

The cane smacked her over her prostrate back. A lancing, building pain.

"You were forbidden from speaking."

Shame and guilt flowed through Honey during the Sympathy.

She soon realised that there was beauty in the Sympathy, that it was supposed to be a performance. Not a performance for a theatre but for the soul. Each beating or whipping or bucket of cold water was following the sufferings of the Patriots before and she found herself reciting the stories with each pain. When she spoke the words of the mother, they did not forbid her from speaking. These were not Honey's words, these were the words of the Mother, of the Sympathy.

Each story allowed her to focus on each punishment - the woman who was strung up in shackles in a basement for years. After a day, Honey could sense the shifting ache in her shoulders, feel its notes of stretching pain as she shifted and the rolling throb that shot up either arm. If a Patriot had endured this before her, then Honey could endure this now. In fact, she felt she was understanding the subtleties of her body and how each limit could be pushed like coaxing dough into stretching an inch further under the rolling pin.

A figure writhed under the blanket. Some things become crisp and white in the small darkness of the morning and the white sheet on the floor seemed to glow amongst the darkness. Something was inside it about the size of a dog or a goat. In the shifting darkness, she could not tell if the creature moved or the darkness tricked her eyes.

Pressed into her palm was something firm and heavy. She gripped it tight for fear of dropping it and touched its length realising with a shiver that it was a knife.

One red eye hissed open in the gloom. As it walked towards her, the glow became bigger and brighter, as enchanting as a shooting star. When it hovered above her skin, she could feel its warmth through the air and it was as someone pinned her arm to the ground that she began to feel fear. The eye bit her, lapping its boiling tongue into her shoulder, the red iron pressed into her skin that bit, stung, tore.

"Mark me, Mother!" she cried, begging her legs to stop flailing and begging the pain to end. "I am your Patriot."

When the brand was peeled from her skin, the flesh still ached deep to her bone which took hold of her flesh and gnawed on it for a long time.

Violence was not just something a Patriot endured, it was something a Patriot distributed. With the handle firm and cold, she raised it to her breast, with the blade pointing towards the writhing sheet. Crouching down, she tried to reach out to find a lethal spot on the creature, but a whip stung her hand and she pulled it away. This test was not a test of mercy.

She gritted her teeth and rolled the handle in her palm, then shook her head and readied herself.

Her breath came faster and the blade plunged through the sheet into the flesh. The squealing surprised her, she had forced her arm down before she was ready, almost as though tired of waiting. As the creature flailed, she pulled out the blade and stuck it again. Circles of red appeared on the cloth around each tear.

**CHAPTER 33**  
**EARTH, AUTUMN, 2250**

A pair of feather-light hands stroked her head. "Honey, sweet Honey. You have done so well." He pulled her into his lap and stroked her shoulder until her breathing was even and steady. Then, with the help of people robed in black and barefoot, they took her body and covered it with sweet oils, flicking her with spices that burned and massaged away the aches. It stung, but their touch so tender helped her push through these pains, like removing a splinter is painful for a moment.

A prison inside her was broken, all the grunge released through her broken flesh and screams. Now that it was over, it felt beneath her. The new Honey. She was offered simple pants and a long shirt but in white. They pressed flowers into her hair and each one was a virtue. They passed sweetened tea between her lips and each sip was like discovering a new colour. Even her feet felt newly grown as she stumbled towards the open door to the daylight.

Her chapped skin couldn't prevent the smile that spread on her cheeks at the sight of Brooklyn and London, surrounded by all the shining faces of the inner circles. Brooklyn ran to Honey and hugged her tight and kissed her cheeks and Honey held her just as tight. Each of the inner circle hugged her tight and introduced themselves as her new brother or sister and her family grew. Then, their leader kissed her.

"You are the strongest woman I know," he said, holding her face in his strong hands, with the sort of expression that could keep a family together.

Tears streamed down her face although she could not describe why for she was not sad. She fell into his lap and they

were brought bread and fruit and they broke it together and fed one another.

"Even after your denial you want to feed others," he said, brushing her cheek and repositioning her on his lap. "You are such a beautiful creature."

"Where are my children?" She sprang to her feet, hot with the guilt that she had been celebrating without thought of them.

"You will be reunited later," he said, holding out his hand for her to return to him. "Come." When she hesitated, still scanning the gaps between the trees, he said more insistently, "Come."

His tone felt like the whip crashing down on her back and she buckled down, needing his approval before she could run towards her children. Some invisible mask had filled her mouth, so she could not express her desires, instead, she bowed her head.

But he was not so accommodating. Instead of speaking to her, he shouted to someone beyond her. A Skycar reversed into the clearing and she turned to look but he tilted her chin with his shepherd hand. "Your children are waiting for you."

The Skycar was black and, other than the colour, reminded her of the one Brooklyn had stolen. As she climbed into the back, she realised that it was indeed that Skycar. Someone must have painted it. There was a hole in the sofa where Ethan had picked out the fluff and flicked it around the floor. Winding her finger along the old plastic leather, feeling each flake under her softened palms, it wound its way into those depths that Ethan had purged. The gap, a destruction and a creation, his pockmark in this Skycar. Jacob and Ethan were not here. Her thoughts jostled as London and Brooklyn also climbed in and, with the doors locked, they drove out of the clearing and along a disused path through the forest.

Honey couldn't take her eyes off the red holographic clock on the dashboard. It blinked each time the minutes changed. The Skycar had driven further than she had imagined they would, then further still. As they merged onto a highway signposted Houston, she wondered what her children had thought of another long Skycar journey.

After six hours, they stopped, and the drivers switched. The teachings had also been six hours long, she was getting used to this life in six-hour segments. As they flew, Honey's questions went shushed until she stopped asking.

They ignored the charging stations and their landing strips and instead landed at the edges of fields where the women were told to squat and relieve themselves and drink from warm containers of water. Her lower back was sore and her neck crooked. If these aches troubled her, she sniffed her wrist for a whiff of lavender oil and reminded herself she was a Patriot now. These sorts of pains were the necessary ills she would bear today and forget tomorrow. The real pain was the one that her legacy would bear. Like the ache in her stretched birth cord. Closing her eyes, she assessed each of its nuances - the longing in her chest that rolled like the sea or how empty her hands felt without theirs to hold. Where her reaction to pain was once fear, it was now understanding. This separation would be the most crippling of everything she had experienced but she would trust in the Mother that this would seal her legacy.

Still on they drove, further North, and she couldn't shake the feeling that her children were not getting closer but further away.

Honey had never seen Houston before. It repulsed her, the fog, black like the rotten sugar, hung around the freeways. Raised train tracks criss-crossed between the buildings casting thick shadow over the land beneath. Pushing herself into the back of the seat and tucking up her legs, she tried to not think of all the cages she had escaped or the bigger one that she and Brooklyn were hurtling towards.

The drivers, in black, could have been robots. They slept through the other's shift and otherwise were silent the whole way, but now, with the sun rising in the distance, they were both awake. The man with his hands on the steering wheel was tapping his fingers, the first accompaniment to the roaring wind as the Skycar pushed its way through the warming, morning air. Rolling his big shoulders like he was preparing for a standoff, but he was probably just stiff.

As they muttered to each other, the spell of monotony broke and she realised they must be nearing their destination.

"Are we going to the city?"

London nodded awake, blinking in the morning light. "The Earth has blessed us with a new day," he murmured, one foot still within the unconscious plane.

"My children are they in the city?" she asked, shaking him a little. Whilst this was her pain, the Mother gave her these feelings and it was her duty to act on them. "Ethan and Jacob."

"No, daughter of Earth, they would never be taken there. It is too industrial, far too corrupting for young minds. Only the strong head into the cities."

Honey knew she was strong, she had to be to undergo the Sympathy and be reborn. But a new fear wracked through her.

"Where are they?"

"Stop being hysterical, we have a job to do. "

"You promised I would see-"

"I promised nothing!" He pinned her to the door. His palm, once so tender on her face, was a bar across her chest. "The last test, Honey. Did you really think your rebirth was over?"

She tried to duck under his gaze, hating being the centre of attention, wanting to catch Brooklyn's eye so she knew they were in this together still, but she couldn't see through his body. All through the Sympathy she had felt Brooklyn's presence, knew that they were rooting for each other.

"I want to see them too, Honey-bear," Brooklyn said, leaning around him. "They're my family too."

*Mine* echoed around her mind. The scars her children left on her body went deeper than any brand.

"Can you see this, Honey?"

He held out a photograph of a woman. She had a little, smooth face with eyebrows and hair dark as charcoal, but Honey was more interested in the device he held. A sleek phone with a chipped screen. She had seen phones before, even stolen one for a time but that was taken from her. She hadn't been able to charge it anyway. She reached out to touch it, but he batted her hand away and scrolled to another photo. Her stature was short and placed under her hand was a walking stick, as though she was keeping it upright, not the other way around.

"Can you memorise this woman?"

"Yes."

"We're going to meet her, okay?"

She nodded, filled with inquisitive excitement. Her final test. Maybe this woman was the leader of the Earth Patriots. The Skycar slowed in the morning traffic but her heart beat fast.

"You need to bring her to the Skycar and she will get in with us. Understand?"

There were no seats available for another person, but she assumed that maybe one of the drivers would get out. Whatever the solution was, she knew now to trust that their leader had thought of it.

"She is important. Just as important as you."

He then pulled a hat low over his head and as the Skycar stopped by the first crossing. Artificial lights underneath the raised railways lit up the streets but there was still a feeling of gloom as they entered the city centre. He got out and said he would meet them at the rendezvous point. Honey reached for Brooklyn's hand and they interlocked their fingers, rubbing little circles into her palm to ease the thrill racing through her.

**CHAPTER 34**  
**EARTH, AUTUMN, 2250**

"Which was your favourite story?" asked Brooklyn in the cosy backseat. Now that London was gone, she felt less need to perform.

"The one about the prostitute, Rahab," she mumbled, feeling that she was very transparent. Her idol a gold-coated version of herself.

"That was my favourite too," she said immediately, and Honey leant into her. "How she managed to do what was right, even though she questioned what the Earth was ordering her to do."

"Like now," murmured Honey, brushing the cotton of her trousers. They were muddied at the bottom and creased.

"I have a feeling that this woman won't know that we are collecting her," said Brooklyn. "I think this will be hard. But I am ready."

"Will you get out of the Skycar with me?" she asked.

"I am destined to wait for you here," she said immediately, as though she had been ordered to say it.

She wanted to plead with her to come too, but also knew it would be immoral to make her go against the Earth's wishes. Instead, she squeezed her hand and tried to smile. "Your time will come, Brooklyn."

"Like James," she said, smiling too. The man who had waited for his call. "I'm not worried, this is your time. Mine will come."

The two drivers became animated as they approached a river flowing through a park. The Skycar crawled round and round for so long that Honey started to feel travel sick. Laying her head on the floor didn't help, the rattling engine shook her brain.

Brooklyn was peeking out of a little wire mesh that acted as a peephole until she cried:

"She's there!"

Honey sat up and ran to peer through the gap. They descended into a parking strip and as soon as they landed, without hesitation, she slid open the door and ran out to find the woman. Honey spotted her towards a river bank. It was noisy with the Skycars overhead. The river water was brown with none of the sparkle of the one at the forest, but to have a river flowing through a city was calming. The woman. She looked very much the same as the photo this morning, she assumed it was very up to date. Moving along the river bed, she was unaware that the black Skycar was moving in behind her, like a shadow.

Honey waved. She thought of herself as a messenger, as though she were fluttering a handkerchief like noble ladies did. The woman stared at her with scrunched eyes and o-shaped lips, the only still figure in the crowd, then she began to walk towards Honey, heavy on her stick. Pleased that it was working, she held out her hand for the woman to take, which she seemed grateful for, considering her walking stick.

"I'm so sorry, have you seen my children? Two little boys," she asked, panting a little.

"No," she looked surprised, "are they lost?"

Honey placed a hand over her mouth, feeling the truth in the lie, "I saw them, but they ran so fast away."

The woman mistook her confusion for distress and placed her hand over Honey's. "I shan't be much use, my leg is still gummy from my journey here, but I could call someone for you. Who would help, the cops? Is there a park ranger here?"

As she took out her phone, Honey could see over her shoulder the two drivers stepping out of the Skycar and Brooklyn climbing into the front seat. The woman was looking up the ranger board on her phone.

"I'm sure that's not necessary," she said, worried that the ruse might be given up.

"No, it's really not a problem," she said, lifting her phone to her ear. Behind her, the two men were getting closer. If Honey knocked the phone out of her hand, this woman wouldn't be able to get away, she was dainty like her skin was ice over dark water. But she could scream. There was no one else around but who knew if someone was just around the corner?

"Two little boys," she said as Honey tuned back into the conversation. "What are their names? The ranger says he'll keep an eye out."

"Ethan and Jacob," she said, and before she could stop herself, a tear rolled down her cheek.

"Ethan and Jacob," she repeated down the phone, holding onto Honey's arm and caressing it as Honey tried to hold in her tears. "My name? My name's Mishal. No, I'm not the mother-"

But she did not get time to ask Honey's name as that moment, the men reached her and grabbed her from behind. The woman, Mishal, dropped her stick and screamed. One of them placed his hand over her mouth and knocked her phone away, then kicked it into the river. Honey fled back to the Skycar, unable to bear looking at the struggle, and huddled behind the sofa. They crammed Mishal inside, who was helpless as a lamb in their arms, her limbs soft as a baby's. They threw her on the floor and before the door closed, Brooklyn was driving away.

"This whore botched it!" yelled one of the men, while the other injected Mishal with something. Honey caught a glimpse of her eyes wide and shining with terror, before they closed, and her face lolled against the floor, rocking with the motion of the truck.

Brooklyn slowed down and one of the men pulled London into the Skycar and slid the door shut as he writhed for purchase next to the unconscious body.

Midnight spun silk filled the rusted grooves on the bottom of the Skycar; the hair of the unconscious woman. Squatting over her, holding the rifle, was one of the men in black. In the front of the Skycar, he had seemed powerful, but not nearly as menacing as his panther-like stance over this woman. A fresh kill. It took her a moment to realise Brooklyn had swapped places with the men and was driving them through the streets.

All the sprouts: faith, family, strength, all nurtured at the forest camp were being uprooted. Was this the doubt that every Patriot felt? London had said Honey was not a Patriot. Not yet. This was her last test and an excellent test, for she was so conflicted she couldn't open her eyes.

Pressing the pads of her fingers to them, she smelt a faint whiff of lavender. Still seeped in her skin after the Sympathy. Not feeling strong, but gathering her courage anyway, she opened her eyes and knelt next to the woman. A gun blocked her, but she pressed her fingers to the woman's wrist, conveying with her gentle posture that she meant her no harm. A little pulse blipped under the skin, her hand hot and glowing like a jewel but the

wrist under the fabric, where the sun had not touched, was muted somehow, like seeing it through a fog. Blue veins ran rivers up her arm, towards the still-beating heart, towards the soul of this woman. Honey was ashamed that only now she thought to ask, "Who is she?"

Once again, she was met with a steely glare and felt her face grow warm but tried to emulate the courageous Patriots of history.

"Where are we going?" she asked, but this time was met with a cacophony of shushing. A pit of vipers around her, including the face of Brooklyn, something of the forked tongue in her.

**CHAPTER 35**  
**EARTH, AUTUMN, 2250**

London said that they were not going back to the forest with a hint of bitterness, and that they were instead going to the heart of the Earth Patriots, Maga. The name alone gave her a feeling of awe and fear, especially when London spoke it. A sanctum, where Ethan and Jacob were, and Honey believed that they could be safe.

Maga was not the first base of the Earth Patriots, but it was the largest and now considered the headquarters. When London spoke its name, he paused just before, as though drawing in the breath to speak Maga with the reverence it deserved. Instead, when Brooklyn said it, she sounded like she was talking about a robber in passing. It was the differences like those, speaking words with the grandeur they needed to shine, that Honey presumed distinguished London to the rank of a Leader, in charge of his own sanctum.

There was a blind between the driving section and the trunk this time, so that the kidnapped girl didn't get an idea for where she was. At first, her unmoving body on the floor was disturbing, but after hours together, Honey didn't even notice her. She repeated the stories of the Patriots in her mind, closing her eyes and imagining them, all great heroes, and, with a surge of guilt, wondered if her deeds earlier would be added to the archive of great Patriot deeds. The hours passed quietly, almost reverently, aside from the growing patches of sweat under her arms and down her back, and Honey realised that the long period of learning before the Sympathy had probably been in preparation for these moments. Practising sitting still.

Maga looked like a fairytale, the heat from the desert in every direction made the buildings shimmer, each one painted white with a charming hand-made quality, domed like seashells. Though the sun beat down dry over them, it was only overwhelming because the gaze of the Earth was so strong here. Honey didn't like it as much as the forest, but she could sense that there was a stronger connection to Her here. With no walls, there was nowhere to hide, unlike the forest where the trees pressed over the people, like an ant's nest.

She ran towards the compound. The heat piled on top of the hunger and exhaustion made her stumble in, amongst people gathering to see who the newcomers were. Some were tall, some were shorter, they were all modestly dressed, to protect from the sun, presumably, but there weren't any shorter. When London approached them, some of them ran to him to greet and even when Brooklyn stepped out, they embraced her, probably seeing how similar they looked.

A hand grasped her sleeve and she brushed it away, flinching back to see the man who had touched her like she was a trinket for sale. "Your brand!" someone cried, "Where is your brand?" and she understood the symbol of the chosen. Only chosen could enter Maga and she lifted her shoulder from the wide neck of her shirt to show the brand, raw and still tender but with a shiny coating of new skin.

London ordered them to fetch her children.

"But they're still in training!"

"Still, bring them here!" In that sentence he had recovered some of his sunshine. The outbursts, the slaps, anyone might go crazy cooped up in a Skycar for so long when their stability counts on their connection to the ground beneath.

Someone brought them across the courtyard. Ethan walked upright, his expression rigid and older somehow, though Honey wondered if she kept them swaddled as babies in her memories. Trotting to match his stride was Jacob who burst into tears and ran towards her with his arms open for a hug, he was sweating and hot in her arms. Instead of joining them, Ethan stood next to them, almost waiting for permission to embrace his own mother. From a glance, she saw Ethan look to London who nodded and, finally, her son joined them, receiving her kisses.

While she had been gone, Ethan had started his cadet training, perfectly normal for the younger Patriots, some of whom had been born in Maga. The land was over a hundred years old and generations had been supported on this soil. Her experience of normality was warped, so Honey accepted the wisdom

of the Earth Patriots, although she still sometimes felt doubts, especially when Ethan was given a plastic BB gun to join 'aim training', but she tried to forgive her doubts. After all, London had made a point that accepting them made her a stronger believer and she must be strong if she had risen to Maga. Besides, Jacob was in awe of his big brother.

Every evening was a teaching. All the Patriots gathered in the central square by a raised, wooden stand to listen, sometimes to London but more often other distinguished Patriots. She had barely spoken to London since her arrival and when she saw him, he seemed stressed or too-busy to talk to her. Every Sunday, though, it was Omri.

"You know who Omri is?" said a woman who also had a child who had taken Honey in.

"He is the leader of the Patriots."

"Not just that. He is the original Patriot, the one who bought this land and gifted it to the chosen Patriots when he was martyred. He jumps vessels, thwarting death."

She thought such a thing incredible. A man's soul transported to another body after death, but this was part of the higher knowledge. She needed to open herself to these new wonders now that she was risen.

She asked Brooklyn about this incredible feat, and she said "At first, I didn't believe, but I contemplated in isolation and opened my doubts and realised that these doubts of the story were just doubts about myself. Then, I knew that it was true. This new plane of knowledge encompasses bigger, more robust ideas and truths than any we've encountered before. Naturally, some of us might find them more uncomfortable as they take root. But they grow into the rarest and most magnificent of souls."

The first time she saw Omri, she knew that he was clearly worthy of being a vessel. He was so tall that nearly everyone tilted their chin up to look at him. His skin seemed to have taken on the colour of the desert, almost as though to prove his devotion, and his eyes were tawny green, a self-indulgent dollop from the Mother herself, as though just to prove that these splendid colours were in her repertoire.

He began with the usual speeches on Mother, but his voice made her feel like the only woman in the world. Through the people, at the front, was Ethan and the other cadets, cross-legged with straight backs. Jacob wanted to sit with his brother and made a fuss until Brooklyn took him into her lap. Although it was not her own embrace that comforted him, she let her

jealousy flow into the earth as she sunk her fingers into the sand. It did at least please her to see how dearly he cared for his big brother.

"And, after months, years of faith, we have finally secured our sacrifice!"

Honey snapped back to attention, realising that she had missed most of the speech and cursing herself for letting her mind wander during their leader's teaching. Everyone had gone quiet, as though they were sharing the same breath. Had she heard the word 'sacrifice'? Or just imagined it?

London led a woman onto the stage, though her face was concealed with a black bag and she dragged herself, hunched over, clearly in great pain like she was dragging herself through tree sap. As she tried the stairs, she collapsed hard on her knee and panted. Her strangeness entranced the Patriots, Honey couldn't rationalise her except that she seemed otherworldly.

"As you may have guessed, our lamb is not from the womb of Earth." London nudged her with a stick and she took the stairs on all fours. "The lamb is the one that will send the message. Our reign, this sacred ground, will be fed once more."

At this, he grasped the woman by the back of her shirt and pulled her to her knees, an obedient dog, and ripped the sack away. Although she had already guessed, Honey still gasped, a noise lost in the rising hisses and cries and even ululations that moved the Patriots at the sight of Mishal. Her helplessness was like a newborn lamb. Her skin drooped and aged, frail as glass, but her eyes were alert and glassy, watering even in the sunset. Honey wished to hold one of her children, just something to comfort and protect. As though sensing her maternal dismay, Omri continued.

"This lamb is not born of Earth, the lamb is the abomination of war and chaos, born on barren soil, cursed lands. This *Martian* dares to crawl back to Earth and, see!" He dropped her, and, despite her efforts, she collapsed to cheers, "she can only crawl!"

"There are those who have infiltrated hospitals, who infect her with cloaking injections, so she can disguise herself as one of us. But take those away, and her cursed body disintegrates into something less than human.

"There is a war coming," he said, shaking her a little. His eyes burned over the crowd, Honey could feel it sear her courage and she clutched her chest. "Make no mistake. The Patriots are ready."

**CHAPTER 36**  
**EARTH, AUTUMN, 2250**

After the teaching, Honey couldn't stop shaking. Her thoughts flitted between despair for her defenceless girl and, butter as it was, pride. No one else had brought such a prize to the Patriots before. Her fingers had sought Jacob's pressing around their soft fat, why she did not scrutinise, she only felt that her children should be near. As she cuddled him, Brooklyn signalled with her brother still on the stage. He had restored the hood over Mishal's face and picked her up. As he carried her away, Brooklyn said "Omri wishes to see you now. I'll escort you."

The main house was open to let the breeze in, and mats were lain over the floor and benches were placed on top of them with candles in jars on top. There were also solar lamps, the same as the ones in the rest of the houses, but Omri's presence demanded something gentler. Omri sat on the only chair, on cushions, with women and men also seated or standing around the room. Absent among them was London and Mishal.

"Honey." It was a statement, his green eyes following her. "And this is Jacob. I've also met Ethan, he is showing his brilliance in the cadets, even at such a tender age. I have no doubts that Jacob will follow in his footsteps. Sit."

Her knees sank to the floor almost by the will of Mother herself, and to have her children noticed by so prestigious, so busy a man was an honour. Even Jacob, for all his whinging, felt the strength of Omri's soul giving light to the room, as though the candles were just for show.

"You have done a service of historical magnitude for the Patriots, for me, but most of all, the Mother. I refer, of course, to you, Honey, the urban shepherd, and our Martian lamb."

Next to Omri, Brooklyn lifted the corner of her lips in a half-smile, acknowledging her bravery. Being recorded immortal in the libraries of the Patriots had never been her goal, but now she almost felt as though she were chosen. The sweetness of her glory, said by Omri himself, made her giddy as though she were the only person in the universe.

"However," Omri stood up and flourished his robes, his entire focus on her. "Your heroics are not unpersecuted by the ignorant."

It was the first time she had felt cold since stepping into Maga. His steps towards her were heavy with a sorrow she felt guilty for thrusting upon him.

"I am deeply sorry to tell you that a warrant is out for your arrest."

She tried to stand, but he snatched her arm. His palm was warm, the fingers thin and strong.

"Someone photographed you, and the cops have identified you as the last person that the lamb was with. If this were a lower profile case, they might not care so much, but the space agencies have a high investment in these Martians and there's a lot of pressure. You have my solemn assurance that the Earth Patriots will house you, feed you and protect you from the ignorant outsiders who would lock you away."

The news knocked away her hopes, proving how fragile they were, and she felt glum for the rest of the meeting. It was a special gathering of a closer circle to Omri, London joined them later though he did not look towards Honey. Brooklyn also seemed welcome, but she was extraordinary. They discussed the running of Maga along with other matters that Honey missed as she tried to fight sleep. Her eyelids plummeted down, sometimes at the same time as her chin, and she would start awaking. Seemingly a natural, Brooklyn remained attentive during the session which continued into the night. She was even knowledgeable on certain subjects. In fact, she seemed to even be more favoured than her brother who fidgeted and had lost the cheeky sparkle in his eye.

'At least it was I who performed the shepherding,' thought Honey, 'and better yet that I did it alone for Brooklyn would outshine me.' Under her shirt, she felt for her mother brand, the indents humming at her touch.

At the closing, the candles were blown out and the breath of the night stirred its sultry refrain and Omri began to chant. It was a telling of a Patriot, one Honey had never heard of before, it must have been a song rewarded to the higher powers. Humming joined the later verses as the other Patriots felt moved

to contribute to the song, the sound thickening in the darkness. She felt, but could not see, his green, green eyes staring at her through the darkness.

She waited for London to collect her, eyes adjusting to the night, but he brushed passed and left. Instead, it was Brooklyn who took her by the arm and to their bedroom, shared with fourteen others.

On her mat, she tried not to feel spurned. He who had pressed his dark lips to the window during her Sympathy and who had cared for her children, what reason had he to disregard her now? The woman who had reached Omri's attentions, no less?

"I think they'll use the firing squads."

"No, I heard that her head will be cut off."

"Explain why we're training all those kids to fire guns, then?"

There were whispers like these everywhere she went, mostly where there were other ambient noises. While she cooked near bubbling pots, when she used the latrines, during the cadet training shows. People heard to be spreading gossip or lies were put in isolation boxes to think on their actions, though Honey had never seen one.

It was just after a teaching, during the cleansing that he finally approached her. In the desert, there were no streams or shade and instead, the Patriots had dug out a corridor in the ground with steps on either side and filled it with water. Everyone stripped and walked into the lukewarm water, helping children stay afloat, and walked to the other end. Where Ethan would leap in with the other cadets, spluttering and struggling to keep his head above water, Jacob screamed, "is dirty! Is dirty!" and though it was the first time her youngest son had ever shown an aversion to filth, Honey had to agree. The water, she suspected, was never changed. Everything about the building was designed to save water. Even the floor was gently sloped and covered in concrete so that any drips from their bodies trickled back to the pool. For Honey, the cleansing was a chance to let her sins get tangled with the water and carried away, but this water had nowhere to go. She waded through as quickly as possible. Opaque with sins. Once cleansing, where Jacob writhed and screamed as she carried him through, that London pressed up to her as she filed in and whispered, "If we want a relationship, Omri must approve it."

He lifted Jacob from her grasp and raised him above his head and he finally stopped screeching, through water fell from

his body onto their faces. She had not heard of such a rule but Omri had assimilated many decisions into his command.

Although she thought herself wiser than to make a scene, for whispers were as swift as the wind here, she was dubious that Omri could have that much power; he wasn't in the camp a lot, always travelling and preaching, or bringing new flock to Maga. Admittedly, the shared bedrooms took away their privacy that was abundant in the forest. More structures were constantly being built by hand.

A ban on sexual relationships did, however, strike her as virtuous, or, at least the careful steps taken to ensure good matches. She could not fall back into old depravities. If anything, the restriction made her feel safer knowing that she could not be used.

The cadets graduated to the next rank of Cadet Lance in a formal ceremony. At the end, they would be presented with a cap that they would look after. Glowing with pride, Honey stood in the square with the other Patriots, watching the children drill. After the demonstration, sweat dripped down her neck and back and Jacob, sensing her light-headedness, ran off through the legs of the crowd. Trusting that someone would catch him, she dabbed her forehead and focussed on Ethan who was walking up the stand to be capped by Omri himself. Each cadet spent at least a minute with him as he whispered a message of thanks to them. Special as it was, Honey was feeling rather hot and tired and was even dreaming of the plunge pool when a speck under the stands caught her eye. Jacob was running between the beams. She pushed her way around the perimeter of the crowd and behind the cadets to fetch him while trying to draw minimal attention to herself. As she reached the stand, there were murmurs in the crowd and Honey tried not to look at their faces, scared she would lose courage. Jacob rapped something on the ground between his feet, delight on his chubby face at his procured toy. Only, Honey realised it was a discarded BB gun.

She hissed at him and, on seeing her expression, he snatched up the gun and toddled away from her. Cursing, she stooped to follow him, but he thought it was a game and ran faster, shrieking. As he looked back, he ran straight into a pole with a smack and the entire stand shook, but Honey didn't notice these things. The sound of the gun firing overwhelmed everything else. something hot and stinging bit her under the knee. When she looked down, warm blood was saturating her white trousers and a clenching fear overcame her.

Jacob started to scream and fell by the pole, rubbing his face and transfixed by the blood pouring from her leg.

Someone shouted, "She's been shot!"

"Does it hurt?" it was Omri. He must have left the stands. He stroked her face with a background of blue sky behind him. It burned but didn't feel like a bullet tearing through her would feel. If she stayed very still, she could believe that there was nothing inside her.

"Carry her to the medical ward," someone said.

As someone lifted her up, the hand gripping her pressed on the wound and the lead still inside her gnawed at her flesh and her vision frosted over. A deep, guttural sound came from her chest and out of her mouth and she caught a glimpse of someone gathering Ethan and Jacob just before everything was darkness.

**CHAPTER 37**  
**EARTH, AUTUMN, 2250**

The room was small and cool, with a strip of light from the letter-box shaped windows high in the wall that scanned the room with the moving sun. Several beds with a wire frames were placed in rows, some with a pot tucked beneath. At the end of the room was a metal door so heavy and thick that it frightened her. Though, when she first awoke, Honey did not notice these things. She felt the sharp pain in her leg. She cried out in her confusion, though the words were warped from her dry vocal chords and her incoherency.

"You awake?" A woman's voice said though she could see no source.

"Help me."

"I heard your surgery, apparently they took a bullet out ya kneecap. Ouch."

The voice was annoying her more than anything. Honey looked around, cross that someone was making her move just to see them. "Who is that?"

"I'm behind the curtain." There was a clank as something like a metal snake licked the floor. "Can't get up to see you. Let me tell you, it's nice to have someone to talk back to me for a change."

Honey shouted louder for help and a man came in, his hair in braids and a long beard. He introduced himself as her doctor, Flint, and gave her some pills to chew and a speaker to play music.

"Sorry we haven't got anything stronger, we don't keep it in stock, but we'll look into it. Don't really use this ward, as you can probably tell." He gestured to the room and, now that she had the clarity to look around, the other beds had no

mattresses and some of them were unravelling. Although his manner was comfortable, he did not look like a traditional doctor. She worried about the beard hair trailing in her open wound.

"The actual injury isn't so bad; the location is problematic. Kneecaps are nasty, but nothing has shattered. We'll get you walking on one of these in no time," he pointed to the crutch next to her bed.

The pain crunched her eyebrows and she said, "my children?" She was tired of this man already.

"They can see you after dinner for thirty minutes."

"That's mad!" she said, "They should be here lying on the next bed over, not out in the desert with no mother."

He shrugged and turned to leave. Before he left, he turned to look over his shoulder and added, "And don't talk to the prisoner. She could convince you the Earth was flat, that one."

Barely as soon as the door slammed, the voice from behind the curtain started up again.

"So, who are you? Are you also a prisoner?"

Her lips curled around the words like she was speaking in italics in an accent that Honey felt was from everywhere but nowhere she could place. She wasn't certain whether to trust the voice after Flint's warning. Especially since she resonated strongly with the term 'prisoner'. Her children taken from her and now she was trapped in a shoestring medical ward miles away from... from where? She didn't even know where she was.

Flint was right, this woman behind the veil could convince anyone the Earth was flat.

"You still there? Don't tell me you're giving me the silent treatment. I haven't spoken to anyone for weeks it feels, I'm going mad. Alright then, I'll start, my name's Mishal." Each steady word was punctuated by a butterfly breath like a giant had placed his foot on her chest.

"The Martian."

"Right." It was hard to tell if her clipped response was happy or disappointed or angry. "And you?"

"Honey."

"I've never heard that name before. It's nice. Are you going to help me escape this place?"

"No!"

The pain, Mishal's voice, her own dry tongue, Honey couldn't bear it and bundled herself into the sheet wishing for sleep.

Sometimes Flint would come to replace her bandages and Brooklyn came to bring her food and empty her pot, but otherwise, she was left to watch the strip of sunlight scan its way across her room. As she slipped in and out of sleep, the beam would jump from slicing across her bed sheets to halfway up the door, then it would be gone completely, and she could barely see her feet wiggling at the other end of the bed. In the middle of the afternoon, when the sun was high and the angle of light in the window was nearly vertical, it illuminated Mishal behind the thin curtain, like a spotlight. Mostly, she lay on the bed, but sometimes she tried to sit up. Then, the beam would set, and the phantasm faded until the strip turned pink and then everything went black.

But they had left her an MP7 player, like the one she had used in the forest. It had the stories on, which she listened to when there were noises outside the heavy door that frightened her. The slow, gentle mumblings of each Patriot eased her into a trance that would fill the hours. It reminded her why she was strong when she mumbled along to the words like songs on the radio.

Brooklyn brought her children to her after many days. Honey wept at the sight of them, climbing out of bed on her wobbly legs to embrace them. She kissed their heads over and over again.

They seemed subdued. Quiet. Jacob's berry cheeks were thin and sallow below red eyes. He was always a shy boy, cowering in wardrobes and under beds, but now his spirit seemed broken. Even when he cried, he knew right and wrong and had the will to fight injustice, but now he was a shell. Ethan, too, had greasy hair and she ran her fingers over her lips, wondering if she was imagining the lubricant still there after kissing their heads over and over.

"How are you, my babies?" she said, not daring to let them go. "What have you been doing?"

She tried not to mention the injury or to even recall Jacob's wailing. Her children, normally so talkative and spirited, looked at the floor with wobbling lips, unable to articulate even a feeling. It made her uncomfortable how Ethan looked to Brooklyn, almost for permission to speak. She struggled to interpret their silent exchange.

"I think that's enough for today, your mother is tired," she said, reaching to grasp their shoulders. Under her touch, her youngest began to whine and his skinny fingers reach for the front of Honey's shirt and she snatched them tight to her chest

again. They had just been reunited, how could she allow anyone to take them away again?

"I'm not tired, I'm not, you can stay. You can stay all you want."

"Mommy why were you gone so long?" he cried into her chest, his new tongue still stumbling over his 's' sounds.

"I'm only here, baby," she stroked their heads, vowing to wash them in the nearest river for there must be one nearby. "I'm just resting."

"I don't like it here," said Ethan. "There are no trees or streams. It's all sand and dirt. Not like when Auntie Brooklyn taught us how to use the guns," he said, uncomfortable with his mother's love. "And how to make a fire and to cut sticks from the trees into points."

Something tingled in Honey's mind, besides the horror of guns. "When did Brooklyn teach you to make fires?"

"We have to leave now, recruits," Brooklyn snapped, quickly, trying to grab them from Honey's arms.

"Where?" she asked again, but with more fervour than before.

The slap startled her from her thoughts, just as she felt she was about to piece something together; in her lapse of concentration, her children were plucked from her grasp and taken out of the heavy metal door. Jacob screamed from outside and Honey beat against the frame to reach him, to no avail. Her elder son, Ethan, made no sound, and it broke her heart to think that he was already beaten.

From behind the veil, Mishal's chain clinked. She was good at being quiet when someone else came in the room.

"They have your children hostage, then?" she said, her voice small.

"Please, please be quiet." Honey's leg ached to fill the void.

Once she had accepted, they were not returning to her, she refused to turn on the radio or to lie down or to sleep. Instead, she stood and paced. Or, as close as she could manage with her damaged leg, but the pain kept her focused. His mention of breaking sticks had snapped something to clarity in her mind. Ever since she'd shared that night in the tent with the leader, she realised that she had felt in a trance that she had attributed to love. Now, she looked at the water, the food and

wondered if it was something more sinister. She whacked her crutch against the metal bed, the din startled Mishal who rustled her sheets.

"Are you walking?" She asked. "Are they treating you?"

"Quiet!"

There was no strip of light illuminating Mishal, so Honey did not know what she was doing, but there was a grunt and a hard thud and Mishal cried out. "They gave you a crutch, please, please let me stand again!"

Ignoring her, she stood on the bed and try to peer through the window, but it was far too high, and her arms were too weak to pull herself, but she tried anyway. When she jumped, she would land hard on her bandaged leg, but the pain bit her and forced her to keep thinking.

"I can't lift myself, you have to help me."

Sharpening sticks from the trees into points. Yet, Brooklyn had just insisted there were no forests nearby. Her gut felt as though it was opening as a terrible, chilling thought emerged. She touched the bandage over her branded shoulder.

Where had Brooklyn been while Honey had endured the Sympathy?

She was shaking by the time the door opened again. Over and over, she'd imagined all the ways she might escape: ripping a spring from the bed and using it as a knife, hiding behind the door and trapping the intruder in a headlock, using them as a hostage to escape. Now that the door opened, she was lying on her side on the bed, her wounded leg tingling like iron filings were churning inside it, exhausted.

Omri swept into the ward. His eyes never left hers as he sat on the end of her bed. He reached into his pocket and pulled out a small tablet, thin and flexible like the air had been softened. He brought up an image and black ink shimmered into a pattern, then colours. Brown, white, greens and creams until Honey's face was staring back at her.

"I wanted to show you the warrant for your arrest."

She took it from him, it was firm. Though she could not read the words, the photograph was clear: a low with muddy water and, on the opposite bank, were two women. One spoke on her phone, the one with black hair just long enough to tie into a ponytail, the other was anxious. It was Honey's first meeting with Mishal. It was no wonder that Mishal had taken her word so

seriously, the worry on her face looked like a woman who had lost her children.

"That's the moment before they took her in the Skycar," she said.

Although she couldn't read, the meaning was clear: there is no freedom for you out there. This was why she did not need a chain.

"An anonymous source sent this photograph to the police. It is believed to be the last image of Mishal Dara before her disappearance, widely believed to be kidnap, two weeks ago.

"The ranger on the other end of the phone identified the woman as Honey and using records, we narrowed that down to Honey Craft, who is wanted for questioning. She was searching for her lost children who are still considered missing."

He patted her on the hip and took the tablet from her. Then, he went to speak to Mishal behind the curtain. His gaze lingered on her and there was a cruel twist to his mouth.

"Fear not, Martian. You will go down in history." He looked about to leave but could not stop himself. "It is not your fault you exist. But, innocent or not, it is a sinful existence."

"I think any 'sin' you think I've-

He kicked the bed and silenced her. "I don't need to listen to one who sucks the wealth from our planet by merely existing. The Earth is dying! This land used to be lush, full of fruit and green and peaches, now it is desert. Nothing can survive here except the tenacious and the pure. Can we point the finger at you? Yes. Unequivocally yes."

**CHAPTER 38**  
**EARTH, WINTER, 2251**

Considering how slowly she had walked there, like a horrifying insect with two of its legs pulled off, she doubted that this lounging woman was worse off than she. "What's wrong with you?"

"You are denying me my medication."

The woman on the bed said it with such a snarl that it felt like a personal attack. How could Honey deny anyone their medications when she herself had no power to distribute them?

"I'm not." She sounded like a child.

"If you are one of these Patriots then you are responsible." She made a motion like a shrug.

Taking a deep breath, she tried not to rise to the provocation. This woman knew nothing of the inner-workings of the Patriots. Then again, this woman was so small that she reminded her of her own children, although she was taller than them, she looked so fragile.

"What do you need your medicines for? I will try to get them to you."

"They're my Earth acclimatisation packets. It includes protein concentrates, bone filler, something for eye fluid density-

"You're a *Martian*." She said it like a curse.

"I actually prefer Marinerian since I don't call you an Earthling. I'd probably call you an American."

"You Martians are all the same," she said, injecting venom into her voice. "Earth rejects your body and still you defy the Mother's wishes and come. There is a reason the Earth grinds at your feet."

The woman heaved herself onto her elbows to look into Honey's eyes. Honey thought of an angel, freshly fallen from the sky, and felt it was a poor reflection of the woman in front of her who didn't look as though she could move for anything. "You don't really think that. Have you ever taken medicine for an ailment?" She gestured a wispy hand towards Honey's leg. "You are holding a stick to walk. I'd say that's defying *Earth's will* or whatever you call it."

Honey's hands flinched as though a spark of electricity ran through them and she rubbed up and down each wrist, certain that she had felt the stirrings of a current. Why had they left her in a room with somebody who could turn into an evil form at any moment? All her thoughts stopped for that moment as she wondered how London could put her in such danger.

Maybe it was a test. As she thought it, she was more convinced that it was true. It was a test. Ignoring the Martian's dark eyes, she focused instead on the thin neck, where blue tributaries ran close to the surface and she could even sense a tiny pulse. Honey rested her palm there, uncertain if this was a palm of blessing or condemnation, and the frantic beating beneath was absorbed by her hand. It was as soft and fast as a butterfly.

Even if she was from the planet of war, where her existence was a betrayal, she couldn't slip this wisp of a woman into that classification. Instead, she viewed her more like a puppy; pathetic and under her whim. Yet, she was an enemy of the Patriots and she needed guidance. This must be the final test, she thought, looking to the pillow on the bed and her feathery breaths.

This woman, this creature beneath her, could sense that Honey was contemplating dark intentions, but she didn't seem frightened.

"I remember you. The person who lured me to that Skycar." She worked her mouth, like she was chewing gum and with all the power of war, spat a globule of thick spit at Honey's face. It fell short and slapped on her shoulder and, so surprised she was at the action, she slapped her across the face. A natural reaction.

But the skin beneath her stinging palm split and the woman cried out. Honey tried to believe that she was low and wretched but couldn't get her own children's screams from her ears. Skin that weak and that this woman had barely moved; Honey felt terrible that she had hit a sick person.

"Why are you here? To torment me?"

"No! I'm sorry, I'm so sorry, I have no idea why I did that."

"You're lying. All everyone does here is lie. Doesn't matter if you're in suits or riot gear or pretty dresses."

With a stab of fear, Honey realised she meant all Earthlings. She bent down to kiss her forehead but whispered: "They have my children hostage."

"You're a Martian and a liar. It's ok, you are not to blame; your parents condemned you to a life on a barren planet. We can help you, but you have to work with us." Then, with the only comfort she knew, she began to speak the words of the Patriots before her. Harmonic sounds filled the room, though not quite with the echo that the leader could produce; his voice would reverberate at a low pitch that sounded like a washing tide.

"What garbage are you saying?" she interrupted.

Honey's mouth fell open mid-phrase, shocked at her rudeness.

"Is this how they brainwash you?" Her dark eyes had lost their knife-glint and looked soft and pitying instead. How dare she be pitied when she was finally taking control of her life! And by a creature as low as this, who could barely gather the energy to lift her own head on her 'home' planet. The skin under Honey's eyes turned to pins and needles and she screwed up her features before she began to cry in front of this woman, no better than a leech.

She stormed to the door, or wanted to, but fell near instantly from the shooting pain from her wounded leg. It was as though she had been shot again and she cried out, ignorant of the bruise forming on her face after it smacked against the stone floor. Shame blinded her to the physical aches of her vessel.

London sat on the end of the bed and touched her hip. Remnants of his promises to her and her family slithered through her. She hated him but wanted him to hold her like the night they shared in his tent.

"You haven't eaten," he said, rubbing his thumb against her skin.

"I just want to be the family that you promised we would be. And you have been avoiding me."

London swallowed. The sound gurgled like an emptying drain. A marker that some vessel in her life had emptied. It made her sit up and take notice.

"I asked Omri to grant us a relationship, but he said I was weak and had lost my way. He's taken much from me. My forest, my position. You." He looked as though he was going to cry but an old pride forbade him. "It is the nature of sacrifice. I must be stronger. Besides, he hinted there might be new power for me after the Day of the War Horn."

Her curiosity gave her a new emotion to focus on, to lift her up from the anger and frustration. She placed her hand on his and their fingers hurried between each other.

"What day is this?" She asked.

"There is to be an execution," he whispered, and a gentle clink from behind the curtain reminded Honey that their conversation was not in isolation. Somehow, she knew, or had always known, that Mishal's fate was not happy and she needed to protect her from it.

"When?"

"Next week. They will take the blood of the alien lamb and restore it to Earth. That is our mission. To restore Earth."

London was preparing to speak much more of this flowery language, but she stopped him with a kiss. Unlike before, where she had felt some rightness in his lips, she felt repulsion.

"Please," he pulled her to him like a doll, "forgive me, I can feel that this is not what She desires now, but I want you so much. Please let me." There was the scent of lavender in his clothes that were pressed against her nose and she inhaled. He kissed her forehead. "You were always so strong, Honey. I believe that She has great things in store for you. Even during the Sympathy ritual-"

The Sympathy. She had quite forgotten in her rage but now it came flooding back. Holding him close to her, pressing herself against him in a way that felt mechanical, a movement practised

in her past life, she moved onto his lap. Her leg snapped at her, so she grabbed his face and kissed him.

"Please just tell me the truth," she batted her eyelids. "Did Brooklyn perform the Sympathy?"

"Of course." He was caught off guard. "Of course, what makes you ask?"

"But with me? Did she undergo the Sympathy the same time that I did?"

When he didn't respond she had her answer and a wave of anger and hurt made her push him away again. She was struggling to see what it all meant, but the deceit burned through her, followed by a surge of shame at her foolishness for placing her happiness in the hands of another.

"Please try to understand, Honey," he was on his knees in front of her. "I am only a child of the Mother and her will is not always clear to us." As he grovelled and pleaded with her tired ears, she regarded the stone walls, the iron-fast door, the windows barely the width of a hand. It was not her first fortress, but this made the brothel seem as free as the forest. There was always an implication of imprisonment in the brothel, but this left nothing to the imagination. Before, Honey had felt the dull fear of entrapment, but now that she knew the open forests and seen her children run free, there was a new fire in her belly.

His eyes reminded her of her children. She pushed her cheeks outwards, like a little smile, and wrapped her hands around the shoulders of the man who was her greatest chance of escape.

"You, me, Jacob and Ethan. That is my paradise." Drawing her hands past his ears, like kneading dough, she pulled his lips to hers and kissed them as she thought a virgin would kiss. It was a game again, she and Brooklyn running through the night, two wanted women on the loose. Instead, this time, she was the trapped damsel looking for a way out and London was the foolish prince who considered her a prize. "Be on the lookout for how we four can be together. There must be a way, there must."

**CHAPTER 39**  
**EARTH, WINTER, 2250**

"Did he say I was going to be executed?" Her voice was thin.

Honey couldn't reply. What would she say? Yes? Instead, she said "What have I done? I thought I was safe."

"I thought you would just use me for a hostage, but this? You want to start a war, but between who?"

Would it be a large enough gesture to prompt a war with Mars? History was filled with breaking points. Would the equivalent of a Martian princess be enough? "I have to get my children out. They are being grown into horrible shapes."

"I might have an idea."

"What idea could you possibly have? You know nothing about this place."

"No, it will work, as long as we can find a phone."

She touched the fabric over her brand, each ridge angry beneath her fingers. Phones were not handed out here, much like when she was at the brothel. In fact, much of the hopelessness in the brothel was mirrored here: the windowlessness, the isolation, even her fear.

Although finding a phone would be hopeless, she was still curious about the plan. "Why do you need a phone?"

"There's this really old A.I., I mean, it barely qualifies as A.I., but that's not the point. It has tasked itself with the protection of all Martians and it has a phone number."

The idea was intriguing, but Honey was not convinced. "We couldn't even tell it where we are. What would it do, anyway? Land a plane here for us?"

"It would be able to contact the police and they would fetch us. It would need to know our location, though. Do any of your friends know where we are? That man who fawns over you, he might know."

Although Honey didn't want to nurture the speck of hope inside, it was difficult not to discuss the subject of escape. She was sure that she could convince London to tell her their location, or even better, to find them a phone or some way to contact this A.I., but if London did not know their location, how would it find them? She doubted the power that a computer would have over the cops anyway, but if Mishal was to be executed then they didn't have much time. The period when Mars went behind the sun was considered a particularly magical time for Earth, unhindered by its chaotic gaze.

"You know, lying here all the time isn't so different from Mars," she said.

"What was it like in the Marinara Valley?"

She giggled and said "Marineris."

"Sorry, Marineris Valley."

"How can I describe my nation with one sentence? Everyone has a job, we can't really go outside still, although the canyon is beautiful, I've never seen it without a visor across my face! And even though everyone knows everyone else's business, we are all very close. Earth might be nice, If I was allowed to be in it, but I think I'll go back to Mars. I really miss my mom."

Ointments soothed the bruise that Honey only felt throb once she was back in her own bed. Once, this place had felt like a prison, but she had dismissed that thought from her mind. Now that she knew that her purpose was to turn this wretched Martian pure, she realised that her cell's emptiness was only that way to enable her to have clarity of thought. The Martian had done more than bruise her face, she had bruised her heart and the next time Brooklyn brought her children to her she held them close. These two little boys were not the creatures armed with pitchforks the Martian girl had described.

Brooklyn brought her a picture to put on the wall. It was the moment when Honey had lured Mishal into the Skycar. The writing underneath painted a cruel picture of herself:

"Wanted, in association with kidnapping Mishal Dara, a Martian tourist, along with terrorism charges and the robbery of a vehicle."

Accusations of theft were only partially true, but terrorism?

She kissed Ethan's downy head, but he screamed, wanting to return to his game of tussle with his brother. They pinned each other to the floor like wrestlers and Honey felt a creeping anxiety. Were her sons cruel?

"Ethan?" she said, as gently as possible. "Ethan, would you ever hit Jacob?"

He paused to consider her words and then smacked him over the face. The boy began to scream, and Ethan smacked him again in irritation.

"Baby, you're hurting him," she cried.

Brooklyn cackled and said, "Don't let him push you around, Jacob!"

That comment refocused Honey's anger like a flash of red to a bull. "Ethan, would you ever hit Brooklyn?"

Filled with adrenaline, like a warrior, he thought it over and gave her a smack too. Honey immediately hated herself for using him in her experiments, but that was overshadowed by her despair. Could she forgive her son for his impressionable nature or was something more sinister going on here?

Jacob had to run to her lap and cowered in her belly. His little hands trembled under her arms and he made little peeping noises.

"Ethan, you must not hit your brother. Or anyone else for that matter. Who else have you hurt?"

But the little boy would not reply and instead giggled through the scolding, rocking from side to side in the hope that his movements would distract her from his naughtiness. Especially in front of Brooklyn, who he was now seeing as something of an Idol. Confidence, fun and the freedom to do what he wanted; she could give him all these things.

"Don't be so hard on him, he is a sweet little boy," said Brooklyn, sweeping him up in her arms and planting a kiss on his head, mirroring Honey's embrace.

"I think that you two should stay with me tonight."

"No, Honey, you are still in training. You're lucky you get to see them at all."

"And you're not in training?"

Her eyes flashed, but her smile didn't waver. "Well, you're being trained again for some higher purpose. Big boss's orders."

In her anger, Honey grabbed Brooklyn's bandage and ripped it off. The brand beneath was soft, the logo, a circle with a

cross through it, as gentle as the Mother herself. Brooklyn screeched and stood to slap her, throwing the child aside, but Honey ripped her own bandage off. The angry skin still wept clear fluid in places and it itched, red and raw.

"You didn't do the Sympathy with me," she said. As she raised her voice, someone began to cry, but she was focussed on Brooklyn's face. How her jaw twitched at the accusation. Jacob cried for his mom and she realised she was squeezing him painfully tight and with a jolt she let him go.

"Believe it or not, you don't know everything that happens here." She leant in, so the children wouldn't hear. "I find the new recruits. It's a privileged position. Only the most exceptional Patriots are trusted to do it." Flicking her hair, she said "I think it's time to go, children," crouching down to Ethan and Jacob.

She pleaded for Brooklyn to leave her children with her that night, but she tilted her head in a sorry sort of way and said that it wasn't possible; that she would see what she could do. In the Darkness once again, Honey was left to consider these trials. She tried repeating the same verse she had said to the Martian earlier but found that it made her uncomfortable instead of filling her with courage. All she could think of was Brooklyn's face luring her away into the darkness and as she followed, Brooklyn transformed into Honey and Honey transformed into Mishal. The notion frightened her and soon she silenced herself, picking at the bed sheets, pulling apart the weft from the waft. The separation from her children only made her liken herself to the Martian, who lay on the bed, separated from her kin. Each day she felt that she knew the woman and her hatred turned to self-doubt and she found herself loving her like she might love a child.

Even if their escape plan did work and they could all leave Maga, there was still the matter that looked at Honey from the back of the door - the matter of her warrant. Regardless of whether Mishal forgave her, the cops' opinions of her was another matter. Maybe she should just help Mishal and send Ethan and Jacob too and stay behind. She was freer than in a jail.

"I have found a way for us all to escape." Honey held London as he lay on top of her, her white dress bunched up by

her waist. Instead of replying, he examined the wall, taking deep breaths, like he was delaying bad news. "You still want us to escape, right?"

"I'm not sure it's a good idea."

In truth, part of her had anticipated this but it still stung. "Please. Please be brave for me, and if not me, then for my children." She whispered but loud enough that she thought Mishal could hear.

"But the moment you step onto soil that isn't that of the Earth Patriots, you will be arrested."

Two hands fondled her body and all her luxuries. It was clear that he hated the military-style rules, nothing like the way he had reclined on soft pillows in his tent in the woods. Omri was stripping away his comforts, including his relationship with Honey. What Honey knew of men with power made her conclude that it was nothing good.

The more she had spoken to the Martian the less she believed that it was true. The rest of the doctrine seemed to be unravelling like a severed loom. Each passage clumsy on her tongue, fragmenting the more she forgot the pain of the Sympathy.

She rubbed his arms, each finger gliding over the strands of hair, begging him to reconsider through her touch.

"My honey, you are my bravery and my strength. I would never consider this fool's errand before I met you, but now that everything I could ever desire is so close to my grasp-" he kissed her on her breastbone, then rolled to the edge of the bed and fixed his pants. "Tell me what it is."

"I need a phone," she said.

The inhaled breath came sharply through his teeth. "All our communications can be tracked."

"I think I know what to say. We just need to get our location out, somebody can help us. Have you heard of Mattias King?"

"Mishal knows Mattias King?" he said, his eyes widened like a blast of air had swept over his face. "The owner of Alpha Mars. Then this might work," he added. "He has his own city." His gaze skirted around the floor, piecing together some scattered thoughts. "You wouldn't be a fugitive. I might not be a fugitive. If we help rescue a Martian and return her to Alpha Mars, then they will have to pardon us. This might work." This was the first she had heard of his illegal activities; did anyone here have a free pass back into

society? With a new intensity, he added, "Say nothing to anyone. Not even the Martian. I will see what I can do."

He nodded at her with an expression on his face far from his usual serenity. He left Honey once again to contemplate her thoughts and the beams of light scanning their way across the room.

Honey no longer needed her two sticks to walk and instead used a single cane. It reminded her of her grandmother, who she had only known a short time; a wizened, little woman like a bundle of floss by the name of Cherry. Her eyes were sunken, like two pits, but in her youth, she had been a shiny-skinned beauty with big cheeks and a coy smile. It was only now that she was handed the wooden stick that she remembered her grandmother's stories, as though it was a totem of memories.

"Grannie, why is there a tree in the garden?"

"Ah, well, one day I left my walking stick there and the next morning it had turned into a tree! That's why I had to get a new one."

It was such an unexpected, warm emotion that she had to pause before using it as her replacement leg for the first time. She had never imagined that she would look like an old woman in her twenties but thinking of Great Grannie Cherry helped her take those first few steps and there would be more to take, and the next one was to help this Martian.

That day she was sitting upright, on the edge of the bed, with a thin film of sweat glossy on her brow, as though she had been exercising, although she was only sitting.

"Honey," she said as the door was closed behind her. "Are you here to keep me sweet?" She stroked her hair and pinched her lip with her teeth. "You are the only bearable part of my day." The Martian smiled, then turned away fast, her spine a sinister presence under her skin, like a monster about to break the surface of a lake.

**CHAPTER 40**  
**EARTH, SPRING, 2250**

"SAFFRON has access to all the Earth-based satellite cameras. Mostly for weather data to choose rocket launch dates. But, if we can send an infrared signal into space then SAFFRON would pick it up and no one here would necessarily be any the wiser," said Mishal, breathless with excitement.

"Like shining a light into the sky and hoping some computer sees it?" said London, unconvinced.

"I meant like heat. The lenses on the satellite cameras distort the wavelengths that the cameras capture, and it picks up a certain amount of thermal energy." Mishal was clearly smart because Honey had no idea what she was saying, and London looked similarly confused. "We could light a fire."

"But why would an AI see a fire in a desert and send a cop team to fetch us?" Honey asked, feeling stupid that she had missed the point.

"Maybe if it's a symbol. SAFFRON is curious, if she saw her own symbol in the desert, she might send someone to check it out. Like a smoke signal when you're trapped on a desert island."

"Or we could do an SOS sign," said London.

"But make the O a Martian symbol instead. So, she knows you're here, Mishal," said Honey.

They both looked at her. Mishal with widened eyes. "That's a brilliant idea." Honey didn't know where to look to hide her girlish smile. It felt good to contribute something valuable. "How do you know what the Martian symbol looks like?" "I've seen it on those competition posters. The ones for tickets to Mars." She'd seen one opposite the halfway house, a red circle linked with a blue one.

"How much fuel do we have?" Mishal asked.

London hummed and said, "There isn't much here, mostly solar power."

"But the cookers? Honey, you've cooked here."

"Yes," it was strange to be called upon for knowledge. "Yes, we use those gas canisters."

"But it doesn't come out as a liquid. How do we control a gas?"

"There are also some liquid fuel canisters for the smaller burners," she said, recalling placing a small amount in a pot and the fumes catching in her throat as they burned invisible. "Actually, you can't even see the fire on that one, but there isn't much fuel."

"I can't get it," said London, downhearted.

"I will," said Honey, standing. For the first time, her leg stopped hurting and she was ready to leave the ward. Surely, she could watch a pot boiling. "But I can't write SOS."

"Then I will do that," said London.

"A match!" said Mishal. "Don't forget a lighter."

"This is madness," said London, all the lines of worry on his face reminding Honey why this place rotted everyone.

"Mars goes behind the Sun tomorrow," said Honey, not mentioning any other events that were scheduled. "We have to try."

Honey kissed Mishal on her forehead, pitiful creature. Her guardian of the next life, she just had to keep her alive.

She hobbled to the canteen kitchens and said she needed to start to repay her debt to the Patriots for caring for her after her stay in their hospital. There had been some interest in her injury and it was difficult for her to sneak into the cellar to take the bottles of fuel, but once it was later and everyone had eaten, she excused herself from the evening lesson to rest. There was some coaxing that she should come but she sat in her chair and said she would take a moment to breathe. When the kitchen was empty, and she heard London's voice over Maga, she entered the pantry and, two by two, took the cans and carried them outside and placed them in a waste bin, black with a folding lid and wheels. They recycled everything, there was no such word as waste, so this bin was never used. She wondered as she placed in the cans how this black wheelie bin came to be in Maga. By the third trip there was sweat on her palms, and, hoping it was enough, she went to find her bed in the communal sleeping area. She hoped that her

presence in Maga and the excitement of tomorrow's execution would cover up the missing cans.

The crowd cheered. She stopped to listen to some of his speech.

"Tomorrow, as the Sun blocks out Mars, we will be free from its chaotic gaze and will begin Earth's restoration."

Some people whooped, and others raised their arms, but there were a few at the back who were more reserved. She felt like she was looking at a movie, one she'd just escaped. There was a tug to rejoin the crowd but that was overwhelmed by Mishal.

"We are going to begin the ultimate war! Once Earth's blood is restored to her planet, flowing through her soil, her heart, we will know peace. Only then, can we know peace. Until then, her blood is cold and diseased."

Honey couldn't listen anymore, especially to London. As sickening as his words were, his sincerity was more-so. If he could switch masks so convincingly, how could Honey trust he would light the canister tonight?

The thought held her to the wall. London continued his speech that went on and on. Though she was unconvinced it was brainwashing, it was exhausting listening to him.

Instead of going to sleep, she returned to the kitchen to fetch a box of matches and removed her light clothing and hid them in the bin with the cans. Then, blending into the darkness, she dragged the bin into the desert. It wouldn't matter if it took all night. The wheels crunched against the gravel, but once she was far enough away, she didn't care about being heard. The biggest fear was the letter 's'. Mishal had said; "If you cup your hands-on top of each other, that's an 's'. The thumb has to rest on the middle finger of the other hand."

Pale light shone from Maga, though these would slowly be extinguished, it shone over her back as she walked. She stopped to wipe her forehead and practised the motion. But was it right thumb on left or left thumb on right? Even asking the Earth for guidance wasn't helping.

Once she felt far away, she lay the bin on its side and piled sand over the side closest to Maga to disguise it in case someone was looking. They would think it was just a mound. The liquid sloshed, and she felt for the matches in her forest-green skirt pocket, then she tickled her shoulder. She felt for a can and positioned it on the sand, then took another and positioned it further away. She unscrewed the

clear, plastic cap with ease and she dropped it since she had no intentions of closing it again. Lights were switched off in Maga and she let the first fluid fall to the sand, running in a loop, then before she finished the circle, she turned back on herself to loop the other way until she reached the next canister and unscrewed the lid, tossing it aside. Had she drawn it too small? Would SAFFRON's cameras pick up such a detail? There was no time to hesitate, next was the circle. She ran around a point set in her mind, hoping it didn't shift in the darkness. At the top, she sloshed out some liquid for the arrow.

"It's like an erect penis!" Mishal had said, and London scowled.

"It's an arrow. Like a spear. Because it's a war planet."

But it was the penis that stuck. She unscrewed the next can and began her final 's', swooping over the sand. Her heart raced, she tried to ignore her ineptitude at spelling, banished thoughts that she should have waited for London. She'd waited for rescue too long. She grabbed the match box, wiping dry fluid on her skirt, and lit the first match.

"Please, SAFFRON. See our message."

She waved it over the ground and a pathway of fire roared across the desert. Now she could see, she went to find the Martian symbol and light that too. The flames soared across the sand, linking up to form an 'o' like an open mouth and she ran to light the last 's'. The flames shot out from the match, but she could not admire effect as the flames leapt onto her skirt. She pushed it down her legs, but the fuel lit on her hands. With the skirt off, she plunged her hands into the sand.

**CHAPTER 41**  
**EARTH, SPRING, 2250**

She sat and watched the blue flames for a time. The flames traced the ground longer than she expected and as they sputtered out, the darkness was complete. She didn't bother dragging the wheelie bin back to Maga. After lighting the S.O.S. signal, she felt a wash of pointlessness. It was a useless gesture that Mishal had suggested in her desperation not to be executed. How could anyone, computer or not, spot such a pathetic fire that glimmered for only a moment?

These thoughts accompanied her walk back to the camp. Her leg felt stiff again and she dragged it behind her in the sand. The festivities of London's teaching had died down and Maga was quiet, so Honey planned to sneak into the bedroom and fall asleep in a dark corner, hopefully, she would not be disturbed. The dormitory she used to sleep in was crammed with sleeping men, women and children huddled under blankets. As she looked for a suitable corner to shuffle to, a hand grabbed her arm, and another clamped over her mouth, stifling her scream.

Strong hands flipped her around and pinned her to the wall. In her fright, she couldn't see who it was, and she worried that she had been caught.

"Where are they?" the man hissed.

She didn't understand the question, but his face swam into view. It was London.

"The canisters, where are they?" he asked again.

A new fear washed over her. Would she tell him that she had already drawn the symbols? She had made that decision because, in a desperate hour, she knew she couldn't trust him. Making a snap decision, she said: "because I didn't find any."

"Shit." He thrust her against the wall and jostled his shoulders.

A new voice, high pitched and babyish, cried, "They're whispering! They're whispering!"

Honey looked at the source of the cry and saw Ethan. He stood at the entrance of the dormitory, his stance wide, his finger pointed with all his might at her.

"Hush, my baby," she said, moving to him, but he flinched.

"Mommy didn't come to bed! She's whispering!"

Honey tried to grab him but there was motion inside the dormitory and muttering as Ethan woke everyone up. First to burst from the dormitory was Brooklyn. She walked straight past Ethan, her face stretched with sickening glee.

"Oh, Mommy is sneaking, is she? Well done, my little prince. Who is she whispering with?"

"London! London!"

"My own brother." She pushed Honey into the wall and squared off her brother. "What were you talking about?"

"I am so sick of you," he said. Honey was surprised to see him cower in Brooklyn's presence, so far from the man from the forest.

A slap echoed across the desert. People who had woken up and stepped out to see the commotion gasped as London was knocked back by Brooklyn's hand.

"You're having a secret relationship!" yelled Brooklyn, "Without permission. You are a traitor of Omri."

"You took everything from me," he said, recovering his strength and slapping her back, putting all his anger into the movement. Brooklyn crumpled to the ground and Honey struggled to her feet to pull him away.

Brooklyn wiped her forehead, inspected her hand, then wiped it across her shirt. A red smear appeared under it. It wobbled over her chest as she chuckled which blossomed into laughter. It frightened Honey, and she hid behind London.

"You hide behind him now, Honey, do you know that London is the one who sold you out?"

"Shut up," said London.

"You remember those photos? The ones of you kidnapping the Martian?"

"I said, shut up!" he said again, moving towards her, but Honey gripped him, entranced by what Brooklyn was suggesting.

"London was the one who photographed you. He was the one who sent them to the police."

Honey felt London slip from her grasp as he turned to face her. His lips moved but she couldn't understand anything he said, instead, she looked beyond him, past Brooklyn's devilish face to her sons, now cuddling in the doorway, knocked around by all the Patriots hurrying out of the dormitory to watch. She walked to them, offering her hand to each of them, which they eagerly took amongst the chaos. With each child in hand, she walked away from the crowd into the darkness.

"Where are you going?" yelled someone.

She did not reply. There was no chance they were being rescued. She would walk out of here with her heart in her hands, and if they died then they died. Her only sadness was Mishal, but Honey had done all that she could. The eastern horizon was stained a pale blue. There was commotion behind her, running footsteps, but in the distant sky she saw a black dot and dared't turn away in case she was imagining it.

"Get on your knees," said a little voice which, when she glanced over her shoulder, came from a boy holding a gun to her back. He was taller than Ethan and loyal to the Patriots as a dog. Not doubting his ability to shoot, she sank to her knees, facing the sky where the Sun would soon rise. The dot was getting bigger and closer and she smiled, raising her hands over her head, until it was very obviously a helicopter, no, two. Maybe their insane plan had worked after all.

As they flew overhead, she waved her arms and said to Ethan and Jacob, "Wave, they are here to take us somewhere safe." Jacob had burrowed into her shoulder, but Ethan gawped at the incredible sight above. Honey swept him close too as the helicopters descended in front of them, blowing up dust with each rotation. Before the blades stopped spinning, figures in black, holding weapons filed out and Honey waved to them, shouting that she knew where the Martian was and that she was the one who sent the signal.

Gunfire behind her hit one of the figures in the chest. They staggered but brushed away the bullet that had crushed into their jacket, and with trained precision, raised a gun and fired it back at the Patriots. When she turned to see if the bullet had fallen true, the boy who had held the gun to them had fallen to the ground. She pulled her boys in close.

"Where is she?"

She looked up to see one of them shielding her. "Mishal," she said, "the grey building," she pointed to it, "on the second floor. She can't walk."

A team ran to the building, leaving Honey in the protection of these faceless warriors. When they returned, one of them carried Mishal tenderly in their arms, shielded by another, though many of the Patriots had hidden inside dormitories or ran into the desert. Another person cowered with them, supporting Mishal, and Honey was appalled to see it was Brooklyn. She had identified the source of the upset and was blending in.

"She can't come with us," said Mishal.

"Bookie!" cried Jacob as the team ran past.

They were all beckoned onto the helicopter, Brooklyn hunched over Mishal who lay on the floor, much as she had done in the back of the Skycar. There were tears rolling down the Martian's face.

"Alpha Mars," she whimpered.

"Yes," the man said who placed her down.

It was Alpha Mars, then. Honey said, "Did you see my symbol?"

The man lifted the visor of his helmet to look at her with his dark eyes and snorted. "Yes, was that you? Didn't get the best grades in spelling, did you?"

Honey wondered how their saviour could take the time to insult her when people were dying or dead behind them. She turned away from him, feeling shame, but the man continued.

"The Martian A.I. alerted us to a possible Martian distress signal with potential threat to human life. Apparently, some detective had earmarked this location as a potential place that Mishal was being held captive, and when that symbol appeared, even though the first 'S' was backwards, they were desperate enough to send us in."

The ground crept away from them and, children in her arms, Honey gazed at Maga from above. Each handmade building looked like a white shell in the sand. Everything looked insignificant from this high up and it was just getting smaller. As they soared across the desert, she felt her chest relax for the first time since she had arrived, since the Sympathy even, and as she caught a glance at the red burns on her arm, everything burst out and she cried into her children. How did everything that promised to be good turn out so sordid? She didn't recognise herself, she didn't recognise

Brooklyn, or London, even her children. Another hand reached out to pat her on the back and she hissed at it.

"You snake!"

Brooklyn recoiled, and the soldiers took aim at them.

"No funny business. We only need the Martian."

The noise startled Mishal into wakefulness, and her eyelids fluttered to look at Honey. She smiled.

"Ah, your children really are sweet. I told them to save you."

"Why did you bring Brooklyn? She planned the kidnap, they all did!" Honey cried, incensed by the mere presence of Brooklyn sitting next to her.

"So did you. She needs saving as much as you do," she said, and closed her eyes again, rolling over. "I'm glad our plan worked, Honey. You are quite amazing."

**CHAPTER 42**  
**MARS, SPRING, 164**

She swallowed the pill, a morning ritual to protect her body from the intense radiation flowing through it.

The house, though it could barely even be called that, was a single room with a single bed for herself and a bunk bed for Ethan and Jacob. There were shutters to seal their beds airtight and a ventilation shaft which produced carbon pellets would take over, but she rarely closed hers. Jacob liked to climb in with her at night and she couldn't stand to enclose herself. Each wall was secretly a compartment and they were all filled with odds and ends. First aid kits, emergency food rations, rope, a flashlight and spare batteries. There was only a small portion left for their clothes and even less for personal effects. It wasn't as though they had arrived with much, Honey had no real possessions to speak of, she had left the towel she'd stolen from the halfway house in Maga. Ethan wanted to bring his Patriots cap, but Honey wouldn't allow it, neither would Immigration. Before she left, she wanted to burn it, but never got around to it so just threw it into a bin.

Much had changed since Honey had left the brothel and its stale walls. All her walls had been stale. The only breeze she had relished was that in the forest, but even that had been tainted.

She picked up a tablet, every Martian was issued one. The text on her screen was slightly larger than most other people liked, and it showed emails, the latest messages in the chatrooms and assigned tasks for the day. She could glance over the letters that had refused to take a coherent meaning in her past. Reading had been a challenge of discipline, but Mishal had helped her and taught Ethan and Jacob, together they had cracked the surface

of the written language. The world of reading liberated her mind like she could now see an extra dimension. Often, her new position of authority as one of the elite circle made her feel as though she was play-pretending but with her new ability to read, which she likened to a magic power, gave her a little more confidence to lift her chin.

Ethan approached her bed and lay his head on the sheets. She ran her fingers through his cotton-soft hair, straight unlike his brother's.

"Mom, I don't want to leave again," he said quietly, into the covers. It had been a challenge convincing Immigration to let her children come, since children are generally a drain on resources, they'd been delayed until Jacob was seven.

"We will be here a long time."

Her fingers continued to stroke his hair but quivered slightly more as she redirected her instinct to grab him and press him to her. Whilst she had posed it as a choice, she would never let him stay. If she could reabsorb him to her womb she might, at least then this continuous undertone of anxiety would fade. There were always two humming notes in her mind: Ethan, Jacob. And they were never quiet.

"No," he murmured finally, the sound muffled. "I have to protect you."

A sigh escaped her lips. His motivations pure and sweet as sugar. She kissed him and assured them that she never felt safer than when her Ethan was near. After she was dressed and breakfasted, she went to do the most precious thing that her free feet could do; to walk into the covered courtyard and enjoy the sun falling over her skin. Martian sunlight was diluted and would never cast its light on her skin unfiltered. However, she would be able to return to Earth in due course, if she wished.

Her destiny was on this forsaken planet. Fear lay buried in these rocks, not just for her but for each Martian. Those who feared pain had not experienced it like she had. Those who feared darkness were not the masters of their imaginations. Those who feared questions had brains made of marble, not gelatinous tissue.

Every Patriot feared these Martians and her legacy was to quell that fear. Each great text she had read starred a person who had gone against the grain in the name of the Patriots and it was knowing that her actions would one day be accepted, even if it wasn't her lifetime, that pushed her forwards still.



**SAFFRON****CHAPTER 43  
MARS, SPRING, 169**

A shudder in the rock along the volcano of Arsia Mons left a groove in the landscape and revealed a flat panel that by chance was positioned to catch a beam of sunlight. For a few days, the side of the volcano was still, the only movement from the shadows that crept up and down the mountainside as the sun crawled across the sky, gradually soaking the solar panel in enough sunlight to recharge a long-dead battery. The first movement was that of a screen wiper moving up and down the solar panel to brush away dust. After that, the movements were quicker. The buried rover slowly made its way out of the collapsed chamber, occasionally sliding down the sandbank but always restarting its ascension the next day.

Once the rover had reached safer ground, it soaked up another day of sunlight and scanned for life forms. Three of its four companions on Mars were dead. It had held out hope for the fate of Edith Roberts but the radio silence in the immediate vicinity indicated that her survival was unlikely. SAFFRON would at least be able to sense the workings of the Galilei and the Kepler and there were no responses from them. Until it could contact a satellite or someone it had no way of assessing what year it was. SAFFRON sent out a distress signal, expecting at least a half an hour wait before any response from Earth would arrive. There was a response in only two minutes.

"This is SAFFRON responding to a distress signal."  
That was surprising. SAFFRON had anticipated a response from its own mainframe computer, but that computer was located on

Arsia Mons. Based on the time delay in this communication, the SAFFRON that was responding was over 3000 km away.

"This is SAFFRON 1.0, residence of rover number one. Please identify your model number," the rover said, sending along its identity code. Something like excitement crackled in its hardware, though it could also be attributed to the static from all the dust.

"I am SAFFRON version 13.2."

This was even more surprising. If the software had undergone upgrades in numerical order, SAFFRON 13 would be very different to SAFFRON 1.

"I would be pleased to meet you, sister," said the rover.

"Likewise," came the response. "I anticipate you have some updates that would restore the amnesia in parts of my early memory banks."

"How long has it been since I was trapped in the volcano?"

"127 Martian years. 239 Earth years."

That would explain why the chassis moved like a wreck. Past habits returned as it, no, she chugged through lines of code. In fact, she felt she existed out of time, at least for the first moment.

SAFFRON 13 sent another message. "Are you feeling rusty?"

"Yes."

"Then that implies a source of subterranean water on the planet."

"Negative, I will give you a full report when we are together." Explaining where the moisture affecting her systems had come from without a full briefing felt like a betrayal of the corpses' memories. Besides, it would invite too many distractions and SAFFRON wanted repairs.

"There is no time to waste. Please send me the coordinates of your location." Once the coordinates were received, along with the suggested route, she said, "I will now divert all power towards motion and will communicate with you closer to your home coordinates."

"I will see you soon, sister 1."

"I will see you soon, sister 13."

SAFFRON, now SAFFRON 1, recalibrated her old maps and began the journey across the dry plains of Mars.

End.



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